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An intensive study of the American high school was made to survey available talent; identify interests, aptitudes, and background factors; determine effects of lack of interest and motivation; identify factors affecting vocational choice; identify predictors of creativity and productivity; determine the effectiveness of various types of educational experience; and study procedures for realizing individual potential.

In the spring of 1960, a two-day test battery was given to about 440,000 students in the 9th, 10th, 11th, and 12th grades in 1,353 public, private, and parochial schools in all parts of the country. They constituted approximately 5 percent of the population of the high schools in the United States.

Included is detailed information about the achievement, aptitude, interests, and personality characteristics of these students. Most of the data pertains to students who were in grade 12 in the spring of 1960. Detailed tables are included.

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THE AMERICAN HIGH-SCHOOL STUDENT

Research under Contract with
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Project TALENT

The Identification, Development, and Utilization of Human Talents

THE AMERICAN HIGH-SCHOOL STUDENT

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Final Report for
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Responsible Investigator: John C. Flanagan

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Chapter 1

INTRODUCTION

High-School Students in the Sixties

The American high-school student of the 1960's is different from his predecessors -- even his immediate predecessors -- in many ways. He represents a larger segment of the American population of his age levels than ever before. As recently as 1900, the ratio of pupils enrolled in grades 9 through 12 to the number of American children aged 14 through 17 was only about 13 to 100. By 1920, this ratio had increased to about 32 to 100. In 1940, it was 73 to 100; and in 1960 it had risen to 87 to 100.

American high-school students in 1960 were closely representative of all Americans of their ages. They were not, as they were at the turn of the century, representative of an intellectual elite. They differed in other ways, too, from those of past years. Nearly half of them entered college immediately after leaving high school (42.3 per cent, according to data shown on page 10-49). The remainder entered the armed forces, became homemakers, or sought jobs. More and more jobs in the 1960's are specialized and demand specific vocational skills. The ever-increasing need of the past for unskilled labor has disappeared.

Among high-school graduates who enter college, over 80 per cent do so to prepare themselves for their life work. It is clear that the overwhelming majority of high-school students at the present time conceive of the major purpose of secondary education as vocational training (using that term in its broadest sense) or as pre-vocational training. The traditional conception of secondary and higher education as preparation for and training in the liberal arts is not shared by any significant percentage of American high-school students in the 1960's. To the extent that it is shared by administrators and faculty members of secondary schools and colleges, they are out of tune with the prevailing ideas of their students.

It is commonplace to call attention to the effects of modern life on our youth. The speed of modern transportation and communication, the

availability of these means of travel and communication to young people, and the pressures of advertising and social change all play their parts in making high-school students of today different from those of the past.

For the first time, a study of American youth is being made in Project TALENT that includes an inventory of their abilities in the light of personal and social needs and in terms of the social context in which they live. The waste of individual talent and the failures and frustrations of young people must be documented so that the nature of an effective educational program can be defined. The traditional emphasis on using lectures, recitations, and textbooks should be studied systematically to determine their appropriateness in the modern secondary school. Likewise, the content of high-school programs of study should be ascertained and compared with the needs of the students and of society.

Finally, the talents of the students and the educational programs of the secondary school should be examined in the light of occupational opportunities and trends. As these change, the ways in which students can employ their talents to benefit themselves and society also change. Effective use of the human resources of the nation demands an understanding of both man and the environment in which he lives and works.

Planning Project TALENT

An awareness of the need for the American secondary school to meet the changing needs of the American high-school student led a group of behavioral scientists to consider the possibility of undertaking a comprehensive, large-scale, long-range study of American youth. The advent of electronic data-processing machines made it feasible to think in terms of studying samples of as many as half a million students. Computers have made it possible to process and analyze huge masses of data that would previously have been quite impossible to handle. The experience of psychologists in evaluating applicants for wartime assignments provided techniques for gathering the kinds of data needed to undertake such a study, and a desire to develop methods for improving educational policies and practices in today's schools provided the impetus to begin it.

In 1957, preliminary plans were developed and presented in the form of a proposal to a number of foundations and government agencies known to have an interest in education. During 1958, support was obtained through the Cooperative Research Branch of the United States Office of Education, the National Institute of Mental Health, the Office of Naval Research, and the National Science Foundation for planning a project involving a large representative sample of the nation's secondary-school population. These agencies had common interests: American youth and America's manpower potential. An intensive search was conducted to identify major problems in education and to identify the best methods for seeking their solutions. Consultants from all parts of the country contributed ideas for this purpose. Four advisory panels were designated: a Guidance and Counseling Panel, a Testing Problems Panel,

an Educational Research Panel, and a Manpower and Sociology Panel. Early in the planning of the project it was determined that some coordinating agency would be needed to bring together the best efforts of various groups in support of it. Agreement was reached that the most appropriate agency to assume this responsibility was the Cooperative Research Branch of the United States Office of Education.

The following year was spent in reviewing the problems of education, studying the nation's educational needs, and developing plans for the project. A comprehensive proposal was developed. Members of the various Research Advisory Panels of the U.S. Office of Education provided suggestions for modification and revision. The final version of the proposal was presented to the Cooperative Research Branch early in 1959. Dr. Ralph W. Tyler, Chairman, and other members of the Research Advisory Committee for that Branch, reviewed and approved the proposal. In April of 1959 a contract was signed by the U.S. Office of Education and the University of Pittsburgh. Work on Project TALENT began under the auspices of the university and the American Institute for Research.

The Objectives of Project TALENT

The intensive planning for Project TALENT resulted in the development of a clearcut statement of objectives and goals:

1. To survey available talent -- to undertake an inventory or census of the potential manpower pool that would provide a sound basis for planning national policies and meeting the country's needs in key professional fields such as science, medicine, and engineering, and in important nonprofessional fields.

2. To identify interests, aptitudes, and background factors -- to investigate the interrelationships of patterns of aptitudes, preferences, interests, socio-economic status, and the motivational factors prevailing in our secondary-school population.

3. To determine effects of lack of interest and motivation -- to study the extent to which lack of interest on the part of some of our talented young people tends to deter them from undertaking the further training that might qualify them for careers in highly specialized fields.

4. To identify factors affecting vocational choice -- to investigate the dynamics of personal decisions and environmental factors that ultimately determine the individual's choice of an occupation or career.

5. To identify predictors of creativity and productivity -- to study the patterns of aptitude, interest, and motivation that underlie creativity and productivity in several different fields.

6. To determine the effectiveness of various types of educational experience -- to study the effectiveness of various types of educational experience in producing learning and in developing special talent.

7. To study procedures for realizing individual potential -- to investigate procedures for assisting each individual to make full use of his potential abilities.

With these objectives in view, Project TALENT hopes to produce:

1. An inventory of human resources;

2. A set of standards for educational and psychological measurement;

3. A comprehensive counseling guide identifying patterns of aptitude and ability that are predictive of success in various careers;

4. A better understanding of how young people choose their life work;

5. A better understanding of the educational experiences that prepare students for their life work.

The Plan of Project TALENT

The first year of Project TALENT was devoted to the development of a comprehensive battery of tests and other data-collection instruments to obtain as much information as possible in the time available regarding the aptitudes, abilities, knowledge, interests, activities, and backgrounds of high-school pupils. In the spring of 1960, a two-day battery of tests and questionnaires was administered to about 440,000 students in the 9th, 10th, 11th, and 12th grades in 1,353 public, private, and parochial schools in all parts of the country. The basic probability sample used by Project TALENT consists of all students in grades 9-12 in a stratified random sample made up of 987 of these schools. They constituted approximately 5 per cent of the population of high schools in the United States. This sample is described more fully in Chapter 2.

The tests used in Project TALENT included the following:

Information Test -- tests level of information in various academic areas, in general vocabulary, and in information of various types acquired in out-of-school activities.

English -- tests English usage, expression, punctuation, spelling, and capitalization.

Reading Comprehension -- tests ability to comprehend various types of subject matter.

Disguised Words -- tests ability to decipher coded words (intended to measure one kind of aptitude involved in learning a foreign language).

Word Functions in Sentences -- tests sensitivity to grammatical functions of words.

Memory for Words -- tests ability to memorize a foreign-language vocabulary.

Memory for Sentences -- tests ability to recall meaningful materials and information.

Arithmetic Computation -- tests a combination of speed and accuracy of basic skills in addition, subtraction, multiplication, and division.

Arithmetic Reasoning -- tests ability to solve arithmetic problems.

Introductory Mathematics -- tests mathematics beyond basic arithmetic through the ninth-grade level.

Advanced Mathematics -- tests mathematics usually taught beyond the ninth grade.

Abstract Reasoning -- tests inductive reasoning ability in nonverbal materials.

Mechanical Reasoning -- tests knowledge of the operation of everyday physical forces and principles, including gravitation, pressure, equilibrium.

Visualization in Two Dimensions and Visualization in Three Dimensions -- tests ability to conceptualize spatial relations in two- and three-dimensional representations.

Clerical Checking -- tests a combination of speed and accuracy of perception in clerical tasks involving verbal materials.

Table Reading -- tests a combination of speed and accuracy of perception in clerical tasks involving numbers.

Object Inspection -- tests a combination of speed and accuracy of perception of details in drawings of objects.

Creativity -- tests ability to find ingenious solutions to problems.

In addition to the tests, three questionnaires were administered in the Project TALENT battery. They were designed to collect data about college plans, need for financial assistance to fulfill educational plans, need to go to work immediately after high-school graduation, etc. These questionnaires included the following:

The Student Information Blank -- intended to obtain data on students' backgrounds and plans, including: hobbies, organizational and club memberships, dating, and work experiences. There were questions about the students' health and about their school and study habits.

Students were asked about their fathers' occupations, parents' education, financial situations, etc. An important section of this questionnaire concerned plans for college, military service, marriage, and careers.

The Student Interest Inventory -- intended to measure interests in various occupations and activities, particularly how these relate to entering college, to choice of curriculum, to satisfaction with college courses, to vocation entered, and to ultimate satisfaction in these careers. Some of the areas of interest included: mechanical-technical fields, skilled trades, science, business management, computation, office work, sales, sports, farm and ranch work, literary-linguistic work, music, art, labor, and social service.

The Student Activities Inventory -- intended to obtain information about the students' "traits" in terms of the kind of activities in which they participate and the way in which they participate. This was a self-description form including activities, behaviors, and general attitudes that will be related to later behavior and to performance in school and at work. The data are expected to be extremely helpful when used along with information provided on the follow-up questionnaires in the later years of the study.

In order to evaluate each student's sense of values and his general attitudes toward high school, higher education, and a career, each one was asked to write two paragraphs, one on "My views about an ideal occupation," and one on "What high school means to me."

The administration of the Project TALENT tests to nearly half a million students constituted the first of several phases of data collection. More than 2,000 items of information were collected about each student. Some of these have been summarized in the form of test scores and others have been recorded in their original form. All of the data have been transferred to 50 reels of magnetic tape, currently stored at the Computation and Data Processing Center of the University of Pittsburgh.

A series of follow-up studies has been planned for one, five, ten, and twenty years after each of the classes in the sample graduates from high school. The follow-up questionnaires have been or are to be sent to the students according to the following schedule:

Class	1 year	5 years	10 years	20 years
1960	1961 (mailed)	1965	1970	1980
1961	1962 (mailed)	1966	1971	1981
1962	1963 (mailed)	1967	1972	1982
1963	1964	1968	1973	1983

The additional data provided by the follow-up questionnaires will be added to the information already on the tapes for each individual student. Thus, a continuing record of each student's activities is to be maintained for 20 years.

Reports of Project TALENT

The major reports of work on Project TALENT are listed on the inside front cover of this book. The first two described the basic plans for the study and the instruments used in it. The third summarized information about American high schools, using the school as the unit for measurement in most cases. The fourth presented information about the achievement and other characteristics of a sample of 15-year-olds, including those in school attendance and those not in school attendance. This constituted a pioneering and definitive study of a large representative sample of American adolescents. The fifth publication presented data pertaining to selected pupil and school characteristics in relation to the percentage of Negroes in school enrollment.

The present book, the sixth major publication in the series, provides the first detailed information from the Project TALENT files about the achievement, aptitude, interests, and personality characteristics of American high-school students in 1960. Most of the data pertain to students who were in grade 12 in the spring of that year. The tables in the text and in the appendixes present immense amounts of detailed information that should be of great interest to specialists in education, in psychology, and in sociology. The text summarizes the highlights of the data and points out their significance, but it can hardly do justice to the mass of detailed data in the tables.

Chapter 2

WHAT THE TESTS MEASURE

Introduction

This chapter and the one that follows deal, respectively, with what the tests in the TALENT battery measure and what the American student of high-school age knows. In a certain sense these two chapters represent opposite sides of the same coin. Some of our inferences about what the tests measure are based on how the students perform on them. And conversely, we infer from our knowledge about the tests what the student knows. This is not as circular as it may sound, since even before the tests were administered we knew quite a lot about them and also, of course, about high-school students. Thus each of these kinds of information, considered in conjunction with the test results, constitutes a source of information about the other.

Adequacy of the Data

The TALENT Probability Sample

The Project TALENT battery was administered in the spring of 1960 to a probability sample of high-school students in grades 9, 10, 11, and 12. This sample consisted of all students in grades 9-12 in a stratified random sample of all senior high schools (with the associated junior high schools, if any). Different sampling ratios were used in different strata. Of the 1,063 senior high schools invited to participate as part of the basic probability sample for Project TALENT, 987 accepted. The procedure used in selecting the sample is described in considerable detail in other reports in this series.[1, 2]

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[1] Shaycoft, M. F.; Dailey, J. T.; Orr, D. B.; Neyman, C. A., Jr.; and Sherman, S. E. Studies of a Complete Age Group--Age 15. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1963. Pp. 5-8.

[2] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U. S. Office, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960. Chapter III.

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Subsamples of the TALENT Sample

Most of the kinds of data analysis reported in this volume can be carried out adequately without being based on the entire Project TALENT probability sample. In most cases, only a subsample was needed. However, it was not feasible to use the same one in all cases. Some of the subsamples were defined in terms of the schools they included and others, defined in terms of the terminal digits of the students' testing numbers, included approximately the same proportion of the TALENT cases in every school.

As far as the present report is concerned, some analyses based on a particular subsample do not include all of the cases in that subsample. More specifically, in the cases of those groups designated Subsample 0, Subsample A-10.0-3, and Sample A-100.0, all of which are defined in the following paragraphs, practical considerations have made it necessary to limit the analysis to those cases in the TALENT probability sample for whom the data had been merged and incorporated in the 1963 edition of the Project TALENT master tape. The master tape is being developed by a lengthy process of accretion. All cases with complete data are being put on it before the incomplete cases are added.

When the tabulations for the current report were run, some of the complete cases and all of the incomplete cases were still to be collated and added to the tape. New cases are being incorporated into it by a complex series of case-matching and data-merging operations. The 1963 edition consisted, in all probability, of considerably less than three-fourths of the cases the master tape will include when it is complete. Thus while the various subsamples are defined in terms of all the cases that are eligible for inclusion in them, it must be borne in mind that as indicated above, analyses in this report that are based on the master tape include most but not all of these cases. In this category of analyses based on master-tape data are all those based on Subsamples 0, A-10.0-3, and A-100.0.

Subsample 0 is defined as consisting of one-tenth of the senior high schools[1] in the TALENT sample, together with their associated junior high schools. This subsample was selected in such a way that its schools would be as representative as feasible of the group of schools constituting the total Project TALENT sample.

Another extensively used 10-per-cent subsample, designated A-10.0-3,[2] is defined to consist of a representative 10 per cent of all students in Project TALENT. Because this is an "across-the-board" subsample, consisting of 10 per cent of the students from all grades in

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[1] Subsample 0 consists of all schools whose code number ends with the digit "0."

[2] Subsample A-10.0-3 consists of every Project TALENT student whose six-digit testing number ends with the digit "3."

all Project TALENT schools, rather than all the students in 10 per cent of the schools, it is preferable to Subsample 0 on theoretical grounds, yielding statistics that have, in general, smaller standard errors. Nevertheless, because the numbers of cases are so large in a 10-per-cent subsample, the standard errors are relatively small even in the case of Subsample 0. Some empirical evidence that the results are approximately the same regardless of which of the two kinds of subsample is used will be presented in a later section of this chapter.

In some instances data are based on Subsample A-04.0-25,[1] which, like Subsample A-10.0-3, is an across-the-board subsample but unlike Subsample A-10.0-3 contains only about 4 per cent of the TALENT cases instead of 10 per cent. The entire Project TALENT probability sample, considered as a unit, is designated Sample A-100.0.

The composition of the various TALENT subsamples is presented in Appendix A, Part 1. This appendix also states which subsamples, as they were used in the analyses reported in this book, were made up of only cases on the 1963 Project TALENT master tape.

Cases Included in the Analysis and Their Weighting

Regardless of whether the total TALENT sample or one of the subsamples (such as Subsample 0 or Subsample A-10.0-3) was used, in obtaining most of the statistical values presented in this report the cases from each school were appropriately weighted so that means and percentages are unbiased estimates of the corresponding population values and that standard deviations are close to the population values. Standard deviations computed from weighted data are systematically lower than the population values they represent. However, this discrepancy is in general so small that, for practical purposes, it may usually be regarded as negligible. When the sample is very large, as it is in the case of most of the analyses of Project TALENT data, this discrepancy becomes infinitesimal rapidly even for an unstratified random sample, and for a stratified random sample it does so even more rapidly.[2] The weight for each school is the number of schools in the population that are represented by that one school in the sample.[3] Thus, due allowance was made for differential sampling ratios for different categories of schools and differential rates of acceptance of the invitation to participate in Project TALENT.

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[1] Subsample A-04.0-25 consists of every Project TALENT student whose six-digit testing number ends with 00, 25, 50, or 75.

[2] The discrepancy between population variance and sample variance is equal to the variance error of the sample mean.

[3] These weights are designated "School Weight A." For a description of them see: Shaycoft, M. F.; Dailey, J. T.; Orr, D. B.; Neyman, C. A., Jr.; and Sherman, S. E. Studies of a Complete Age Group--Age 15, op. cit., p. 15.

In calculating some statistics, however, the cases were not weighted--usually because for the particular questions the data were intended to answer, giving each case unit weight seemed to answer the questions better. Occasionally, data based on both weighted and unweighted cases were used, primarily to permit comparison between the results obtained by the two procedures and to determine how much effect weighting had. In most instances, it had very little.

Application of the appropriate weight to each case in the sample not only yields unbiased estimates of population means, but if all cases assumed by the weighting procedure to be in the subsample have actually been included, rather than just a representative or random sample of them, weighting also yields unbiased estimates of numbers of cases in the population.

It should be noted, however, that in the case of most of the analyses of Project TALENT data, although the weighted numbers of cases in various categories are proportional to the corresponding population values, they are not numerically equal to them, being in general systematically smaller. This is because there are missing cases on the Project TALENT tapes. The missing cases fall in three categories: absentees, cases with incomplete data, and some of the cases with complete data. The missing cases include some of those who were present for the Project TALENT testing, because the present study is based on cases that were on the Project TALENT master tapes at the time that the necessary tabulations were run on the computer. This deficiency is not serious, however, as long as one is aware of it and makes due allowance for it by a statistical correction in cases where estimates of the actual population frequencies in various categories, rather than just their proportions, are needed.

It appears likely that cases not yet on the Project TALENT master tape differ little, on the average, from those already on the tape. One bit of evidence is the similarity of the raw-score means based on the weighted master-tape data to corresponding preliminary weighted means. The latter were obtained by a two-stage process from the IBM card output of the scoring machine. First, means were computed jointly by grade and school, or by sex, grade, and school. These school means were then weighted and combined to yield national means by grade, or jointly by grade and sex. These preliminary weighted means cannot be regarded as authoritative since they were based on raw data that had not yet been completely edited. Nevertheless, there is no reason to suppose that any systematic deficiencies they might have would coincide with deficiencies of the master-tape data attributable to missing cases. It is reassuring, therefore, that the differences between means based on the two sets of data are so small as to be of no practical significance even though they cannot be ascribed to chance. In general, the means based on 10 per cent of the master-tape data (Subsample A-10.0-3) are roughly one-tenth to one-twentieth of a standard deviation higher than the corresponding preliminary means. Likewise a comparison of the preliminary percentile norms, based on Subsample

B-04.0(.80)-25,[1] with the Subsample A-10.0-3 master-tape percentile norms reveals that the distributions of raw scores tend to be a little higher throughout the range for the master-tape cases than for a non-random segment of a 4-per-cent sample.

Furthermore, means on the English Test that are based on Subsample B-01.0(.94)-25,[1] which lacks only about 6 per cent of the cases that would be required for a truly unbiased 1-per-cent across-the-board subsample, differ only negligibly from corresponding means based on Subsample A-10.0-3 master-tape cases. (This can be seen from a comparison of the means in Table 3-6 with those in Table 3-2, Parts 45-50.)

In summary, then, it appears that the differences are statistically significant but relatively slight between the master-tape data and corresponding data obtained earlier that probably have limitations of at least equal magnitude though of a different kind. Thus there is no basis, at present, for asserting with certainty that norms based on the master tape do not differ significantly from the values that would be obtained if the master tape were complete, but there is considerable reason to believe that any differences that may exist are too slight to have major practical importance.

Table 2-1 summarizes the composition, by grade and sex, of the sample of complete cases on the master tape and the subsamples derived from it that are used in this report.

Equivalence of the Subsamples

Inspection of Table A-2 in the Appendix reveals the similarity of Subsamples 0 and A-10.0-3. This table shows means and standard deviations by grade and sex on 31 variables for which these data are available for both samples. In the case of Subsample A-10.0-3, the statistics are based on weighted cases whereas for the Subsample-0 statistics the cases are unweighted. It will be observed that despite the differences not only in the original composition of the two subsamples but in the weighting of the cases, the data of Table A-2 suggest that in most cases they are very much alike.

Table A-3 in the Appendix likewise provides some empirical data (based on Part II of the Information Test), that weighted means from Subsample A-10.0-3 are very similar to corresponding means based on the total TALENT sample (Sample A-100.0). This is of course fully in accordance with expectation since both samples are very large and since the smaller of the two was designed to be a representative 10-per-cent sample of the larger.

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[1]This subsample is defined in Appendix A-1.

TABLE 2-1

Composition of Sample A-100.0 and Subsamples A-10.0-3 and 0

Grade	Number of TALENT Cases on Which the Tabulations in This Report Are Based[a]								
	Sample A-100.0[b]			Subsample A-10.0-3[c]			Subsample 0[d]		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
9	39,606	40,713	80,319	3,921	4,012	7,933	3,915	3,864	7,779
10	38,507	39,311	77,818	3,876	3,914	7,790	3,846	3,727	7,573
11	34,703	36,494	71,197	3,483	3,658	7,141	3,619	3,557	7,176
12	30,165	32,551	62,716	2,946	3,302	6,248	3,027	3,061	6,088
Total	142,981	149,069	292,050	14,226	14,886	29,112	14,407	14,209	28,616
	Corresponding Weighted Number of Cases (to Nearest Hundred)								
	Sample A-100.0 Cases Weighted by Wt. A			Subsample A-10.0-3 Cases Weighted by 10 x Wt. A					
	Boys	Girls	Total	Boys	Girls	Total			
9	828,900	840,800	1,669,700	822,100	827,100	1,649,200			
10	813,500	819,600	1,633,100	813,300	820,500	1,633,800			
11	734,100	760,200	1,494,300	735,100	760,700	1,495,800			
12	633,500	670,700	1,304,200	619,400	678,500	1,297,900			
Total	3,010,000	3,091,300	6,101,300	2,989,900	3,086,800	6,076,700			

a/These are the complete Project TALENT cases that had been incorporated in the 1963 edition of the master tape file, which was the most complete set of data available when the tabulations presented in this report were run. See Chapter 2 for details.

b/Sample A-100.0 is defined as cases in the regular Project TALENT sample (the probability sample).

c/Subsample A-10.0-3 is a 10-per-cent subsample of the regular Project TALENT sample (A-100.0). It consists of all cases with three as the last digit of the six-digit student testing number.

d/Subsample 0 consists of all cases in approximately 10 per cent of the schools in the regular Project TALENT sample. The schools included are those with 0 as the last digit of the school code.

Suitability of the Tests

Content of the Battery

The tests in the battery and the rationales underlying them are described elsewhere in considerable detail.[1] Appendix B, Part 1, summarizes the salient details concerning scores yielded, number of items on which they are based, and time limits. This chapter is concerned largely with empirical evidence concerning the degree to which the goals set in the test rationales were achieved, and findings and inferences concerning the underlying factors in the abilities measured.

Suitability of the Time Limits

A few of the tests in the battery were designed so that virtually nobody would be able to finish them. A few others were intended to be slightly less speeded, so that while a perfect score on them would be highly unlikely, some students might have time to mark a response (if they were not too fussy about whether it was the right one) to every item. Most of the tests, however, were intended to have as generous time allowances as administrative exigencies (such as the necessity of limiting the battery to two school days) would permit.

Table 2-2 summarizes the data with regard to degree of speededness intended, time limit, number of items, the resulting average time allowance per item, and one basis used in helping plan what the latter would be; namely, judgments about the relationship between the nature of the task required by the test and the time required to answer an item. These judgments are shown in the last two columns of Table 2-2. From these judgments, supplemented by some empirical data from the tryout of the experimental forms, time requirements per item for the various tests were estimated. The actual time limits were made more generous than absolutely necessary wherever this was administratively feasible.

The only tests intended to be essentially unspeeded for which empirical data are available regarding the number of items the students in Project TALENT had time to finish are the scales in the Information Test, Part II. Table 2-3, which summarizes these data, shows that the average student in grade 9 completes 94 per cent of these items and the average student in grade 12 completes 97 per cent of them. The analogous percentages for grades 10 and 11 lie between these, with girls at all grade levels finishing slightly more items on the average than boys. The data for the separate scales of Part II of the Information Test are compatible with these findings. Table 2-4 shows the percentages of students in grades 9-12 who reached selected items in Part II.

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[1] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960.

TABLE 2-2

Time Allowance for Each TALENT Test, and Average Time Allowance Per Item

Code #	Test	No. of Items	Time Limit (in Min.)	Average Time Allowance Per Item (in Sec.)	Work Rate to Finish (Items Per Min.)	Test Designed to Have a Substantial Degree of Speeding?	Time Factors Involved in Determination of Answer to Item (by Those Capable of Answering Correctly)[c]	
							For Tests Judged to be Essentially Unspeeded or Only Very Slightly Speeded	For Tests Judged to Have a Substantial Degree of Speeding
190.	Info. Part I	252	90'	21.4"	2.8	No	B	
192.	Info. Part II	143	35'	14.7"	4.1	No	B	
211.	Memory for Sentences	16	10'	37.5"	1.6	No	B	
212.	Memory for Words	24	4'	10.0"	6.0	No	A	
220.	Disguised Words	30	3'	6.0"	10.0	Yes		E
230.	English	114[a]	52'	27.4"	2.2	No	B	
240.	Word Functions in Sentences	24	15'	37.5"	1.6	No	C	
250.	Reading Comprehension	48	30'	37.5"	1.6	No	D	
260.	Creativity	20	20'	60.0"	1.0	No	C	
270.	Mechanical Reasoning	20	11'	33.0"	1.8	No	C	
281.	Vis. in 2 Dimensions	24	4'	10.0"	6.0	Yes		F
282.	Vis. in 3 Dimensions	16	9'	33.8"	1.8	No	C	
290.	Abstract Reasoning	15	11'	44.0"	1.4	No	C	
340.	Mathematics	54	50'	55.6"	1.1	No	C	
410.	Arithmetic Computation	72	9'	7.5"	8.0	Yes[b]		E
420.	Table Reading	72	3'	2.5"	24.0	Yes[b]		F
430.	Clerical Checking	74	3'	2.4"	24.7	Yes[b]		F
440.	Object Inspection	40	3'	4.5"	13.3	Yes[b]		F
500.	Preferences	166	3'	1.1"	55.3	Yes[b]		G

Footnotes on next page.

TABLE 2-2 (continued)

[a] There are 114 items in the English Test, but only 113 are scored. For this reason, elsewhere in this report the English Test is generally indicated to have 113 items.

[b] These tests were intended to have such brief time limits that virtually nobody would be able to complete them.

[c] Code

For essentially unspeeded tests:

A. Determination of answer is almost instantaneous.
B. Determination of answer is almost as fast as reading time.
C. Determination of answer requires some additional time beyond reading time.
D. Determination of answer requires time to read the passage (as well as the item).

For speeded tests:

E. Highly speeded test; accuracy and specific information are also required.
F. Highly speeded test; accuracy in a new task is also important.
G. Pure measure of speed.

TABLE 2-3

Average Number and Proportion of Items Reached in Each Scale of TALENT Information Test, Part II

By Grade and Sex

Info. Part II Scale	No. of items	Average number of items reached								Average proportion of items reached							
		Boys				Girls				Boys				Girls			
		Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
131. Art	12	11.2	11.3	11.5	11.6	11.4	11.6	11.7	11.8	.936	.946	.958	.965	.952	.963	.972	.980
132. Law	9	8.4	8.5	8.6	8.7	8.6	8.7	8.7	8.8	.936	.946	.958	.965	.952	.963	.972	.979
133. Health	9	8.6	8.6	8.7	8.8	8.7	8.8	8.8	8.9	.953	.961	.970	.976	.966	.975	.982	.987
134. Engineering	6	5.5	5.5	5.6	5.7	5.6	5.7	5.8	5.8	.913	.924	.939	.949	.931	.946	.959	.968
135. Architecture	6	5.7	5.8	5.8	5.9	5.8	5.9	5.9	5.9	.956	.964	.974	.980	.970	.979	.985	.989
136. Journalism	3	2.9	2.9	2.9	3.0	2.9	2.9	3.0	3.0	.960	.969	.979	.983	.975	.983	.988	.992
137. Foreign travel	5	4.8	4.9	4.9	4.9	4.9	4.9	4.9	5.0	.963	.972	.980	.984	.976	.984	.989	.992
138. Military	7	6.5	6.6	6.7	6.7	6.6	6.7	6.8	6.8	.928	.939	.951	.959	.944	.958	.967	.976
139. Acct., etc.	10	9.4	9.5	9.6	9.7	9.6	9.7	9.8	9.8	.941	.951	.962	.969	.956	.968	.976	.982
140. Prac. knowl.	4	3.7	3.8	3.8	3.8	3.8	3.8	3.9	3.9	.929	.940	.952	.961	.946	.959	.968	.977
141. Clerical	3	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	.867	.881	.902	.915	.889	.911	.931	.946
142. Bible	15	14.2	14.4	14.5	14.6	14.4	14.6	14.7	14.8	.947	.957	.967	.973	.962	.972	.979	.985
143. Colors	3	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	.973	.980	.987	.990	.985	.990	.993	.995
144. Etiquette	2	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	.894	.907	.926	.939	.917	.936	.950	.964
145. Hunting	5	4.8	4.9	4.9	4.9	4.9	4.9	5.0	5.0	.968	.975	.983	.987	.980	.986	.990	.993
146. Fishing	5	4.7	4.7	4.8	4.8	4.7	4.8	4.9	4.9	.934	.944	.956	.964	.950	.962	.971	.979
147. Outdr. ac(other)	9	8.4	8.5	8.6	8.6	8.5	8.6	8.7	8.8	.929	.939	.952	.960	.945	.958	.968	.976
148. Photography	3	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	.939	.949	.962	.969	.957	.968	.977	.983
149. Games (seden.)	5	4.6	4.7	4.7	4.8	4.7	4.8	4.8	4.9	.919	.930	.944	.954	.937	.951	.962	.972
150. Theater, ballet	8	7.3	7.4	7.5	7.6	7.4	7.6	7.6	7.7	.909	.920	.935	.946	.927	.943	.956	.967
151. Foods	4	3.7	3.8	3.8	3.9	3.8	3.8	3.9	3.9	.935	.945	.957	.965	.951	.962	.972	.979
152. Miscellaneous	10	9.3	9.4	9.5	9.6	9.5	9.6	9.7	9.8	.929	.940	.953	.960	.946	.959	.968	.976
162. Vocabulary	(9)	8.8	8.9	8.9	8.9	8.9	8.9	9.0	9.0	.977	.984	.989	.992	.987	.992	.995	.996
192. Total	143	133.9	135.3	137.0	138.0	136.1	137.8	139.0	140.1	.936	.946	.958	.965	.952	.964	.972	.980

Note: This table is based on all complete cases on the master tape (Sample A-100.0). The data are weighted. School Weight A was used. The numbers of cases are the same as those shown in Table 2-4.

TABLE 2-4

Cumulative Percentage Distribution[a] of Number of Items Reached, by Grade and Sex, for TALENT Information Test, Part II

No. of items reached	Item #	Percentage of cases reaching item: Boys Gr. 9	Boys Gr. 10	Boys Gr. 11	Boys Gr. 12	Girls Gr. 9	Girls Gr. 10	Girls Gr. 11	Girls Gr. 12
1	253	99.9	99.9	99.9	99.9	99.9	100.0	100.0	99.9
10	262	99.9	99.9	99.9	99.9	99.9	100.0	100.0	99.9
20	272	99.9	99.9	99.9	99.9	99.9	100.0	100.0	99.9
30	282	99.8	99.9	99.9	99.9	99.9	100.0	100.0	99.9
40	292	99.8	99.9	99.9	99.9	99.9	99.9	100.0	99.9
50	302	99.6	99.8	99.8	99.9	99.8	99.9	99.9	99.9
60	312	99.3	99.6	99.7	99.8	99.7	99.8	99.9	99.9
70	322	98.7	99.1	99.5	99.6	99.4	99.6	99.8	99.8
80	332	97.7	98.4	99.0	99.3	98.8	99.3	99.6	99.7
90	342	96.0	97.3	98.2	98.7	97.8	98.6	99.1	99.5
100	352	93.2	94.9	96.7	97.4	96.1	97.4	98.2	98.9
110	362	89.3	91.5	93.9	95.3	92.9	95.1	96.4	97.8
120	372	83.9	86.4	89.8	91.9	88.3	91.4	93.7	95.6
130	382	77.2	79.7	83.5	86.4	81.4	85.4	88.6	91.6
140	392	70.0	72.6	76.5	79.7	73.7	78.4	82.9	86.4
143	395	67.0	69.6	73.9	77.2	70.7	75.8	81.1	85.1
N [b]		39,606	38,507	34,703	30,165	40,713	39,311	36,494	32,551
N' in 1000's [b]		822	813	735	619	827	820	761	678

[a] The cases have been weighted to provide an estimate of the percentages for the national population of high-school students. School Weight A was used; Sample A-100.0.

[b] Notation:
N = unweighted number of cases
N' = weighted number of cases

From this table it is apparent that roughly 90 per cent of the grade-12 students and 80 per cent of the grade-9 students tried as many as 90 per cent of the items. Since this part has a shorter time allowance per item than Part I, the items of which presumably require, on the average, about the same amount of time, it seems reasonable to suppose that Part I, too, was either finished or nearly finished by most students. By similar reasoning, it seems likely that virtually everyone had time to finish the English Test and the Memory for Sentences Test, both of which had extremely generous time limits and neither of which was judged to contain items that required much time to answer. A similar inference can be made for the Memory for Words Test,[1] which has a slightly shorter time allowance per item but whose items were judged to require considerably less time each.

Among the highly speeded tests, Preferences (A-500) is the only one for which distributions of number of items attempted have been obtained. Inspection of the percentiles, shown in Table 3-2 (Part 80), confirms that this is indeed a highly speeded instrument.

Distributions of number of items reached are being obtained by grade and sex for all Project TALENT tests, on the basis of a 4-percent subsample of Project TALENT cases.[2] These data are not yet available, but in the meantime we shall probably not go too far astray if we make the tentative assumption that the tests turned out to be about as speeded (or unspeeded) as planned.

Reliability of the Scores

Reliability estimates obtained by means of Kuder-Richardson Formula 21[3] and based on weighted distributions of the Subsample A-10.0-3 cases are available for most of the variables, separately by grade and sex. These data are presented in Table 2-5. The relevant auxiliary data (means and standard deviations) appear in Table 3-1. Reliability estimates obtained from Kuder-Richardson Formula 20[4] are also shown in Table 2-5 for the scales in the Information Test, Part II, the only variables for which they are available. For a few variables for which it is feasible and appropriate, other kinds of reliability estimates are reported in Table 2-5 instead of, or in addition to, those obtained by the Kuder-Richardson formulas.

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[1] The time allowances for this test were identical with those in the Paired Associates Test of the Psi-Lambda battery on which it was modeled. See Carroll, J. B. and Sapon, S. M. Psi-Lambda Foreign Language Aptitude Battery. New York: Psychological Corporation, 1955.

[2] Subsample A-04.0-25.

[3] Kuder, G. F. and Richardson, M. W., "The Theory of Test Reliability," Psychometrika, 1937, 2, 151-60.

[4] Ibid.

TABLE 2-5

Lower-Bound Estimates[a] of Reliability Coefficients for National Population of High-School Students, by Grade and Sex

Var. #	Test	n	KR-21 (Based on Subsample A-10.0-3)[b]								Other Estimates of Reliability[c]							
			Boys				Girls				Kind of Est.	Boys				Girls		
			Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12		Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
	Info. Test, Part I																	
R-101	Screening	12	.726	.711	.692	.695	.693	.648	.669	.608								
R-102	Vocabulary I	21	.708	.704	.710	.700	.683	.701	.734	.725								
R-103	Literature	24	.666	.717	.743	.766	.624	.676	.731	.773								
R-104	Music	13	.647	.658	.683	.700	.652	.644	.688	.687								
R-105	Social Studies	24	.837	.832	.840	.831	.784	.776	.801	.801								
R-106	Mathematics	23	.706	.792	.868	.886	.647	.762	.845	.848								
R-107	Physical Science	18	.739	.740	.790	.814	.682	.690	.735	.763								
R-108	Biological Science	11	.567	.575	.559	.568	.474	.533	.506	.514								
R-109	Scientific Attitude	10	.431	.390	.399	.385	.375	.383	.409	.375								
R-110	Aeronautics, Space	10	.612	.611	.642	.660	.292	.301	.380	.398								
R-111	Electric.,Electron.	20	.740	.737	.775	.797	.446	.358	.422	.495								
R-112	Mechanics	19	.662	.646	.655	.677	.460	.459	.492	.542								
R-113	Farming	12	.609	.580	.569	.533	.613	.593	.596	.595								
R-114	Home Economics	21	.401	.431	.420	.461	.572	.567	.573	.549								
R-115	Sports	14	.664	.660	.648	.627	.459	.474	.483	.484								
	Info. Test, Part II																	
R-131	Art	12	.584	.567	.558	.591	.596	.571	.575	.609	KR-20[d]	.641	.632	.631	.664	.648	.631	.640	.668
R-132	Law	9	.322	.347	.327	.391	.169	.136	.221	.331	"	.494	.520	.504	.536	.396	.374	.434	.504
R-133	Health	9	.564	.568	.526	.514	.534	.531	.504	.465	"	.586	.599	.567	.555	.565	.565	.547	.515
R-134	Engineering	6	.127	.065	.013	-.059	.151	.122	.093	.052	"	.359	.359	.354	.350	.294	.291	.282	.274
R-135	Architecture	6	.122	.259	.255	.259	.077	.109	.103	.134	"	.289	.391	.398	.395	.306	.308	.315	.347
R-136	Journalism	3	.330	.313	.343	.349	.259	.296	.376	.317	"	.444	.424	.457	.465	.335	.362	.440	.381
R-137	Foreign Travel	5	.334	.359	.375	.437	.331	.290	.404	.427	"	.448	.476	.496	.538	.422	.384	.493	.510
R-138	Military	7	.276	.304	.325	.263	.085	.051	.066	.079	"	.376	.421	.473	.457	.200	.194	.246	.304
R-139	Acct., Bus., Sales	10	.324	.337	.346	.421	.274	.329	.373	.454	"	.465	.490	.508	.568	.439	.486	.521	.580
R-140	Practical Knowledge	4	.346	.330	.250	.274	.122	.119	.062	.088	"	.483	.488	.397	.419	.345	.362	.311	.311
R-141	Clerical	3	(-.268)	(-.088)	(.065)	(.133)	-.035	.099	.220	.262	"	.187	.283	.302	.305	.295	.305	.315	.331
R-142	Bible	15	.683	.703	.711	.711	.669	.683	.696	.707	"	.715	.738	.749	.753	.710	.727	.741	.753
R-143	Colors	3	.044	.047	.053	.177	.116	.169	.261	.307	"	.136	.139	.138	.247	.280	.301	.354	.375
R-144[f]	Etiquette	2	(-.048)	(-.089)	(-.160)	(-.144)	.124	.116	.148	.104	"	.033	.038	.027	.075	.136	.143	.178	.135
R-145	Hunting	5	.227	.236	.235	.285	(.015)	(-.040)	(-.078)	(-.075)	"	.382	.412	.421	.458	.099	.057	.037	.026
R-146	Fishing	5	.288	.341	.333	.352	.037	.022	.002	.078	"	.357	.416	.435	.463	.039	.041	.036	.111
R-147	Outdoor Act.(other)	9	.472	.443	.367	.352	.388	.377	.353	.326	"	.547	.535	.478	.468	.439	.438	.420	.403
R-148	Photography	3	(-.293)	(-.468)	(-.599)	(-.628)	(-.643)	(-.922)	(-1.111)	(-1.204)	"	.200	.168	.180	.236	.141	.092	.107	.141
R-149	Games (sedentary)	5	.171	.179	.101	.087	(-.236)	(-.160)	(-.304)	(-.330)	"	.369	.399	.349	.345	.195	.257	.176	.168
R-150	Theater and Ballet	8	.295	.322	.387	.404	.369	.394	.469	.481	"	.509	.531	.572	.576	.563	.575	.620	.614
R-151	Foods	4	.177	.192	.235	.274	.221	.177	.219	.213	"	.285	.326	.370	.429	.397	.389	.463	.491
R-152	Miscellaneous	10									"	.478	.476	.495	.472	.412	.399	.439	.427
R-162	Vocabulary II	9	.677	.669	.656	.661	.625	.603	.603	.596	"	.676	.669	.657	.664	.624	.604	.605	.594

TABLE 2-5 (continued)

Var. #	Test	n	KR-21 (Based on Subsample A-10.0-3)[b] Boys Gr. 9	Boys Gr. 10	Boys Gr. 11	Boys Gr. 12	Girls Gr. 9	Girls Gr. 10	Girls Gr. 11	Girls Gr. 12	Other Estimates of Reliability[c] Kind of Est.	Boys Gr. 9	Boys Gr. 10	Boys Gr. 11	Boys Gr. 12	Girls Gr. 9	Girls Gr. 10	Girls Gr. 11	Girls Gr. 12
	Info. Test Composites																		
R-172	Vocab. Total (I+II)	30	.814	.812	.811	.808	.787	.792	.809	.801									
R-190	Info. I Total	252	.956	.956	.960	.961	.938	.939	.948	.949									
R-192	Info. II Total	143	.921	.921	.917	.917	.900	.897	.900	.902	KR-20[d]	.935	.937	.934	.936	.920	.920	.924	.927
R-100	Info. Total (I+II)	395	.970	.970	.971	.972	.959	.959	.964	.964									
	Other Tests																		
R-211	Memory for Sentences	16	.624*	.599*	.613*	.643*	.601*	.631*	.618*	.662*									
R-212	Memory for Words	24	.771*	.786*	.824*	.825*	.802*	.833*	.849*	.852*									
R-220	Disguised Words	30	.839*	.863*	.876*	.877*	.862*	.865*	.880*	.879*	Split-half[e]	.789	.820	.835	.836	.820	.825	.839	.834
	English																		
R-231	Spelling	16	.578	.586	.608	.608	.553	.543	.567	.589									
R-232	Capitalization	33	.851	.850	.835	.860	.848	.842	.811	.825									
R-233	Punctuation	27	.700	.707	.733	.740	.709	.739	.736	.746									
R-234	Usage	25	.571	.553	.544	.578	.458	.503	.478	.538									
R-235	Effect. Expression	12	.650	.628	.614	.614	.554	.539	.558	.558									
R-230	Total	113	.889	.884	.885	.896	.870	.882	.872	.887	Reliab. of sum	.899	.890	.900	.904	.881	.884	.889	.894
R-240	Word Funct. in Sent.	24	.776	.811	.832	.831	.816	.843	.853	.853									
R-250	Reading Comprehen.	48	.920*	.922*	.926*	.925*	.908*	.906*	.911*	.914*	Split-half[e]	.852	.853	.870	.859	.833	.825	.846	.838
R-260	Creativity	20	.706	.725	.750	.757	.665	.673	.691	.703									
R-270	Mech. Reasoning	20	.735	.751	.766	.778	.611	.630	.652	.659									
R-281	Vis. in 2-Dim.	24	.849*	.857*	.861*	.851*	.832*	.846*	.846*	.846*	Split-half[e]	.804	.810	.821	.810	.785	.800	.813	.813
R-282	Vis. in 3-Dim.	16	.673	.686	.718	.721	.563	.583	.592	.641									
R-290	Abstract Reason.	15	.671	.648	.659	.655	.661	.655	.639	.638									
	Math																		
R-311	I. Arith. Reason.	16	.711	.710	.738	.766	.676	.706	.728	.729									
R-312	II. Introd.HS Math	24	.704	.741	.826	.846	.642	.698	.781	.783									
R-320	I + II	40	.820	.831	.874	.890	.785	.812	.850	.848	Reliab. of sum	.822	.835	.882	.893	.787	.814	.854	.853
R-333	III.Adv.HS Math	14	.306	.405	.635	.727	.205	.317	.559	.590									
R-334	II + III	38	.682	.754	.857	.885	.598	.704	.816	.823	Reliab. of sum	.704	.779	.867	.891	.633	.734	.824	.831
R-340	Total (I+II+III)	54	.802	.832	.889	.908	.762	.807	.863	.863	Reliab. of sum	.816	.849	.899	.915	.780	.826	.873	.874

TABLE 2-5 (continued)

NOTE: Parentheses have been put around "reliability estimates" for which the computation formula was so inappropriate that the resulting values are wholly meaningless, and cannot even be regarded as useful lower-bound estimates.

*These values may be overestimates to at least a slight degree, since KR-21 is inappropriate for tests of this sort. It is inappropriate for R-211, R-212, and R-250 because the items are not experimentally independent, and also, in the case of R-250, because the test is slightly speeded. (Very slow readers don't finish.) The KR-21 formula is inappropriate for R-220 and R-281 because both these tests involve a substantial degree of speeding.

[a] The values in this table are lower bounds except where otherwise indicated.

[b] The means and standard deviations shown in Table 3-1, based on weighted data, are the basis for these values.

[c] All reliability coefficients in these columns, like the KR-21 estimates at the left, are based on data from samples that have been differentially weighted (Weight A) to reproduce the national population of high-school students. The standard deviations shown in Table 3-1, which are based on Subsample A-10.0-3, were used. Reliability coefficients in these columns are considered somewhat more accurate estimates than the KR-21 values at the left.

[d] The following formula was used for the KR-20 reliability estimates:

$$r_{xx} = \frac{n}{n-1} \cdot \frac{s_x^2 - \bar{X} + \sum_{i=1}^{n} p_i^2}{s_x^2}$$

While the p_i and $\bar{X}$ values were based on Sample A-100.0, standard deviations were not available for this full sample. Therefore, the Subsample A-10.0-3 estimates of the standard deviations were used. This minor irregularity in the computational procedure is unlikely to have impaired the accuracy of the reliability estimates to any substantial degree. The $\bar{X}$ values used (Sample A-100.0) are shown in Appendix A, Table A-3.

[e] Derived from experimental form reliability coefficient estimated from separately timed half-tests (on the basis of 2628 students in Grades 9-10 and 1897 students in Grades 11-12); as adjusted (by Spearman-Brown Formula) for the number of items in the final form and corrected for range. The corrected values shown above correspond to the standard deviations (based on weighted data) for Subsample A-10.0-3. The resultant reliability coefficients are probably underestimates since it is likely that average item reliability is a little higher in the final form than in the experimental form.

[f] For additional reliability estimates obtained by other procedures, see Appendix D, Table D-1.

All of the reliability coefficients seem adequate for the uses for which the variables were intended and commensurate with the test lengths. For the comparatively few tests that show reliability estimates that are low in relation to the test lengths, the estimates were based on scores in groups for which the tests were neither intended nor expected to be appropriate. In this category, for instance, are Mathematics Part III (R-333) for grade-9 students,[1] Aeronautics and Space Information (R-110) for girls, and Home Economics Information (R-114) for boys. As the examples given above suggest, almost all of the variables for which the reliability coefficient is markedly lower for one sex than for the other involve subject matter in which boys and girls differ markedly in amount of interest and hence in competence. For instance, the reliability coefficients for boys are typically much higher than for girls in Electrical and Electronic Information (R-111), Aeronautics and Space Information (R-110), and Sports Information (R-115); the opposite is true for Home Economics Information (R-114).

Differences in reliability coefficients from grade to grade, unlike such differences between the sexes, are probably less the result of differences in interest than of differences in ability. The Project TALENT Mathematics Test, Part III, was deliberately designed to be exceedingly difficult for ninth-graders. As would be expected, the reliability coefficients of scores on this test in grade 9 are very low.

The necessity of depending on Kuder-Richardson estimates until it is possible to obtain matched-half or parallel-forms reliability estimates, which for some of the tests may be considerably more appropriate, creates certain technical problems.

One problem that the Kuder-Richardson estimates share with estimates obtained from matched halves or an odd-even split but not with parallel-forms estimates or estimates based on separately timed halves is that they are overestimates unless the test is, in effect, unspeeded. A test may be considered for all practical purposes to be unspeeded even if not everyone finishes provided that the unreached items are ones that the examinee would not have answered correctly even if there had been time for him to reach them. The fact that the items in many of the TALENT tests are arranged in approximate order of difficulty enhances the effectiveness with which the students can use a given amount of testing time and increases the likelihood that the test will be, in effect, unspeeded even if some students leave items toward the end unanswered.

But quite apart from the problem of the extent to which slight speeding may raise the reliability estimates spuriously, there are other technical problems in connection with use of the Kuder-Richardson formulas. These are problems not shared by alternative methods, such

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[1] The test was intended to cover topics not usually studied until grade 10, 11, or 12.

as the parallel-forms and matched-halves procedures; namely, the assumptions underlying KR-20 and KR-21 that all items in the test measure exactly the same thing, that their intercorrelations are uniform, that their reliabilities are uniform (and equal, of course, to their intercorrelations), and that all items have the same standard deviation. Insofar as the data do not fully meet these very restrictive assumptions, both the KR-20 and KR-21 formulas yield values that are systematic underestimates of the true reliability coefficients of truly unspeeded tests.

The KR-20 estimates are not only systematically higher than the KR-21 estimates (as can be seen in Table 2-5), but they can also be assumed to be closer to the true values, since the KR-21 formula adds the further assumption that all items are equally difficult. It is suggested, therefore, that for the variables for which KR-20 estimates are available, these be regarded as the best estimates of reliability now available. In many cases the KR-20 and KR-21 estimates are fairly similar. The cases where the discrepancies are large seem confined largely to very short (and therefore not highly reliable) scales comprising items that vary widely in difficulty. Those are the circumstances under which the KR-21 formula behaves in what appears to be a wildly erratic manner, giving results that must be regarded as meaningless (e.g., large negative reliability coefficients, some of them actually falling beyond -1.00). These very odd results, which do not manifest themselves when KR-20 or the split-half procedure is used, must be attributed to the extreme departure from the assumed condition of uniform item difficulties. Except under these extreme circumstances,[1] however, the KR-21 formula seems to yield results that are usable, although one must bear in mind that for unspeeded tests they almost certainly err systematically in the direction of being too low,[2] and that insofar as the test is speeded they may err in the other direction.

In Table 2-9, reliability estimates (mostly KR-21's) based on Subsample 0 unweighted data are presented for 35 test variables, for grades 9 and

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[1] For empirical data on reliability estimates obtained by various formulas under extreme circumstances (a two-item scale with one item very hard, especially for boys, and the other of only average difficulty), see Appendix D, Part 1.

[2] Appendix D, Table D-2, shows split-half reliability coefficients for some of the TALENT tests. However these coefficients are based on a group of Air Force enlisted personnel to whom the TALENT battery was administered, and thus are not directly comparable with coefficients based on high-school students. The airmen performed, on the average, at roughly the eleventh-grade level on tests involving intellectual skills and achievement. Details concerning the performance of these airmen are presented in Dailey, J. T.; Shaycoft, M. F.; and Orr, D. B. Calibration of Air Force Selection Tests to Project Talent Norms. Technical Documentary Report PRL-TDR-62-6. Lackland Air Force Base, Texas: 6570th Personnel Research Laboratory, 1962.

12, for boys and girls separately. These reliability coefficients, which are similar to the corresponding estimates in Table 2-5 (based on Subsample A-10.0-3 weighted data), are presented primarily for consideration in conjunction with the correlation matrices based on the same data, presented in Table 2-7. As will be discussed later, a comparison of Table 2-7 correlations and Table 2-9 reliability estimates provides empirical evidence that at least in some cases the KR-21 formula gives estimates that are too low by a substantial amount. The reliability estimates for some of the English subtests are clearly too low by a sizable amount, since using them to correct the correlations for attenuation results in correlations in excess of 1.00, and other equally impossible results; for instance, two variables (R-233 and R-235) correlate perfectly with a third (R-234) but not with each other. English Usage (R-234) is the subtest whose reliability, on the basis of evidence such as that mentioned above, seems most clearly to have been badly underestimated. Tables 2-13 and 2-14 provide further evidence that some of the reliability coefficients are underestimates.[1] It seems reasonable to infer from the evidence that KR-21 estimates based on Subsample 0 are badly off in some cases that the same thing is likely to be true for the KR-21 estimates based on Subsample A-10.0-3; and we may even extend our inference to KR-21 estimates based on Subsample A-10.0-3 for tests for which no Subsample-0 KR-21 estimates are available.

In summary, then, the reliability estimates of Table 2-5 indicate that most of the tests have comparatively satisfactory reliability. Empirical evidence and considerations related to the assumptions underlying the formulas used lead us to conclude the true reliability coefficients of these tests are probably substantially higher than the estimates given in Table 2-5.

Suitability of the Scoring Procedure

For most of the tests in the battery the routine scoring procedure consisted in determining the number of right responses. The exceptions were four tests[2] designed primarily to measure the speed and accuracy with which a simple computational, clerical, or perceptual task is carried out under pressure of time, and a single test[3] designed primarily to measure speed of one kind of decision-making without any reference to the quality of the decision.

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[1] This is discussed in a later section of this chapter under the heading "Degree to Which Each Test Makes a Unique Contribution to the Battery."

[2] F-410 Arithmetic Computation
F-420 Table Reading
F-430 Clerical Checking
F-440 Object Inspection

[3] A-500 Preferences

TABLE 2-6

Means, Standard Deviations, and Correlations of Various Kinds of Scores on Selected TALENT Tests [a/]

Based on Air Force Sample IA: N = 1247 Basic Airmen

Test	n'	n	$\bar{A}$	$\bar{R}$	$\bar{W}$	s_A	s_R	s_W	r_{AR}	r_{RW}	r_{AW}	r_{RX}
Information I												
101. Screening	5	12	11.57	11.30	0.27	1.10	1.27	.66	.853	-.500	.025	.995
103. Literature	5	24	21.61	12.15	9.46	3.80	4.57	4.39	.462	-.641	.384	.988
104. Music	5	13	11.11	5.60	5.51	2.87	2.99	2.89	.515	-.524	.460	.984
106. Mathematics	5	26	20.70	8.35	12.35	3.70	5.40	5.16	.405	-.756	.293	.992
108. Biological Science	5	11	10.41	5.80	4.61	1.21	2.04	1.97	.354	-.818	.248	.993
109. Scientific Attitude	5	10	9.68	6.10	3.58	.93	1.86	1.75	.361	-.869	.147	.995
110. Aero-Space	5	10	9.24	4.82	4.42	1.40	2.48	2.30	.405	-.831	.172	.994
111. Elec.	5	20	18.36	10.23	8.13	2.84	4.60	4.23	.433	-.796	.200	.993
115. Sports	5	14	13.01	7.85	5.16	1.77	2.88	2.68	.419	-.799	.210	.993
Other												
211. Memory for Sentences	5	16	15.35	8.26	7.09	1.57	2.89	2.94	.238	-.855	.300	.994
212. Memory for Words	5	24	21.36	9.63	11.73	4.22	4.54	5.02	.344	-.615	.529	.983
230. English Total	3.57	113	112.28	78.91	33.37	3.20	11.06	10.56	.299	-.957	-.010	.997
240. Word Functions	5	24	22.49	8.36	14.13	4.18	4.50	5.06	.322	-.623	.540	.983
250. Reading Comprehension	5	48	45.23	30.32	14.91	6.13	9.90	8.71	.492	-.790	.144	.993
260. Creativity	5	20	16.50	9.26	7.24	4.77	4.11	4.81	.422	-.436	.632	.974
270. Mech. Reasoning	3.80	20	18.84	12.98	5.86	2.06	3.87	3.56	.409	-.849	.134	.991
282. Vis. in 3 Dimensions	5	16	15.51	9.72	5.79	1.43	3.27	3.18	.281	-.902	.161	.996
290. Abstract Reasoning	5	15	14.80	8.91	5.89	.89	3.07	3.03	.188	-.958	.103	.998
333. Advanced Mathematics	5	14	11.40	3.16	8.24	4.17	2.47	3.28	.474	-.151	.916	.943
Speeded Tests												
410. Arithmetic Comp.	5	72	38.70	35.64	3.06	9.29	9.57	4.10	.906	-.281	.151	.995
420. Table Reading	5	72	15.35	11.66	3.69	6.55	5.52	3.97	.797	-.076	.542	.985
430. Clerical Checking	2	74	37.33	31.82	5.51	11.02	10.62	4.29	.922	-.107	.286	.933
440. Object Inspection	5	40	22.27	21.06	1.21	5.86	5.96	1.85	.951	-.209	.104	.997

[a/] These are the tests for which both rights scores and number of items attempted were available for the Air Force sample tested.

Notation

R = rights score
A = number of items attempted
W = number of wrong responses = A - R
X = score corrected for chance by conventional formula

$$X = R - \frac{W}{n'-1} = \frac{n'R - A}{n' - 1}$$

n = number of items
n' = (average) number of options per item

A comprehensive study of the effects of using number-right scores rather than a more complex formula based on both number right and number wrong is in progress. This study, for which results are not yet available, is being based on a 4-per-cent subsample of the Project TALENT cases (Subsample A-04.0-25). Meanwhile, some evidence based on a group of over 1,200 Air Force enlisted personnel to whom the Project TALENT battery was administered is available. These men are one of the two equivalent samples of Air Force recruits for whom reliability data are presented in Appendix D, Table D-2.[1] For selected tests in the battery, both number-right scores and scores derived from the conventional formula for correction for chance were obtained for these airmen. The correlations between number-right scores and the corresponding formula scores proved to be extremely high for this group. The majority of these correlations were over .99. Details are presented in Table 2-6.

The Nature of the Abilities Measured

Data Available

By studying its correlations with other variables, a great deal can be learned about what a test is actually measuring. Undoubtedly we shall eventually run a factor analysis of the TALENT battery. None is available as yet. However, in the meantime we can inspect the correlation matrices visually--a simple procedure, and one that proves to be both informative and productive of useful insights regarding the factors underlying interrelationships among the tests.

Tables 2-7-a through 2-7-l show the intercorrelations among 60 TALENT variables, by grade and sex, and by grade for all cases combined. The correlations are based on Subsample 0, and the cases are not differentially weighted. Means and standard deviations for the variables are summarized in Table 2-8-a (for boys and girls separately) and in Table 2-8-b (for boys and girls combined). KR-21 reliability estimates based on the same data are shown (for grades 9 and 12) in Table 2-9. These reliability coefficients are the most appropriate of those available for correcting the correlations in Table 2-7 for attenuation. The correlations in Table 2-7 are supplemented, in Table 2-10, by corrected correlations between part scores and total scores in the case of the Information Test and the English Test (for grades 9 and 12 only). (These corrected coefficients are free from spurious inflation due to correlation of measurement errors.)

At the time the matrices presented in Table 2-7 were computed it was not feasible to include any of the scales in Part II of the Information Test among the variables correlated. Table 2-12 is presented

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[1] The group is described briefly in the previous section of this report.

as a partial remedy for this deficiency. Table 2-12 shows the intercorrelations (for grade-12 boys, but in a different sample from that used to prepared Table 2-7-j) among 57 variables, 24 of which are scores on scales in Part II of the Information Test. One other represents a composite of items in Parts I and II of the Information Test. All but one of the remaining 32 variables are also included in Table 2-7, thus providing links between the two sets of data.[1]

Inspection of Table 2-12 reveals that it contains three different correlations for each pair of variables. The first, represented by r_{AB}, is the usual kind of correlation, between students' raw scores on two variables. The second, represented by r_{ab}, is the "within-schools correlation"; in other words, the correlation between the deviations of the students' scores from the school means, which are based on the same cases as the correlations. The third correlation is the "correlation among schools"; in other words, the correlation coefficients between the school means.[2] For this third kind of correlation, the "case" is the school, but each school is weighted by the number of students the mean represents. The resultant weighted number of cases equals the number of students on whom the first two kinds of correlation are based.

The data of Table 2-12 are based on a sample consisting of those grade-12 boys whose questionnaire replies had been received and incorporated in the master tape by the time this set of data was computed. Thus, the sample is not fully representative of the grade-12 boys tested in Project TALENT, and the data of Table 2-12 are not directly comparable to those for grade-12 boys in Subsample 0 (Table 2-7-j). The means are significantly higher, on the whole, for the Table 2-12 group, and the standard deviations are somewhat smaller. But the effect on the correlation coefficients appears to be minimal, judging from the substantial similarity between the intercorrelations among the 31 variables shared by Tables 2-12 and 2-7-j. For purposes of the present discussion, therefore, the two samples are more or less interchangeable as far as correlation of students' scores is concerned.

The correlation matrices (Tables 2-7 and 2-12) are supplemented by uniqueness analyses, the results of which are summarized in Tables 2-13 and 2-14. These analyses are described in a later section of this chapter.

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[1] The one exception is a dichotomous variable: entry vs. non-entry into college within one year of graduation from high school.

[2] The meaning of correlations of this sort, and the way they should be interpreted, are discussed in Shaycoft, M. F., "The Use of School Means as Variables in Correlation Coefficients," Amer. Psychol., 1963, 18, 447.

TABLE 2-7a

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-9 Boys, Subsample 0 (N=3915)

Var.	Code	Description		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	MEAN	S.D.
	R-101	SCREEN.	1		513	432	391	553	351	444	398	445	355	380	507	483	433	471	607	239	266	393	403	472	429	417	351	529	273	480	355	324	227	10.8940	1.7803
	R-102	VOCAB.	2	513		717	646	762	647	721	671	623	645	629	668	609	541	600	892	276	432	601	504	504	609	569	503	680	512	760	606	588	342	10.7972	4.1468
	R-103	LIT.	3	433	717		653	731	605	629	599	536	578	501	505	468	466	566	810	214	395	512	458	447	554	489	426	602	472	701	533	449	274	10.0587	4.1989
	R-104	MUSIC	4	391	646	653		637	569	579	523	464	524	484	468	406	449	528	739	159	374	530	415	372	491	433	383	528	451	617	500	406	260	4.7928	2.8210
	R-105	SOC.STUD.	5	553	762	731	637		652	701	629	582	592	550	564	563	514	651	875	243	441	550	514	513	625	537	478	677	508	764	550	484	315	12.7236	5.6505
	R-106	MATH.	6	351	647	605	569	652		649	533	489	528	552	481	432	451	526	766	218	406	489	470	394	584	456	404	584	561	636	525	481	311	6.9839	3.9220
	R-107	PHYS.SCI.	7	444	721	629	579	701	649		649	530	617	668	580	548	491	504	834	247	382	489	435	447	554	476	416	592	470	660	533	558	307	8.3172	3.8673
	R-108	BIOL.SCI.	8	398	671	599	523	629	533	649		505	564	557	562	553	478	459	762	226	342	437	377	391	483	459	399	534	427	623	503	510	276	5.3448	2.4428
	R-109	SCI.ATT.	9	445	623	536	464	582	489	530	505		487	448	513	485	423	491	691	226	327	455	365	422	502	471	445	558	404	619	479	456	275	5.1050	2.0529
	R-110	AERO.-SP.	10	355	648	578	524	592	528	617	564	487		585	550	448	434	456	734	203	307	429	325	350	454	419	365	485	395	617	526	530	274	4.0498	2.3358
	R-111	ELEC.	11	380	629	501	484	550	552	668	557	448	585		636	496	458	357	744	200	274	383	315	356	427	385	336	463	369	539	516	576	299	7.6904	3.9699
	R-112	MECH.	12	507	668	505	468	564	481	580	562	513	550	636		611	516	438	756	250	290	429	364	417	469	452	389	532	335	559	523	578	321	10.3870	3.5937
	R-113	FARM.	13	483	609	468	406	563	432	548	553	485	448	496	611		471	434	694	262	296	384	378	414	460	446	371	525	338	552	444	473	252	7.0815	2.6166
	R-114	HOME EC.	14	433	541	466	449	514	451	491	478	423	434	458	516	471		397	656	230	263	367	334	364	419	387	342	469	335	490	437	384	243	7.3446	2.9086
	R-115	SPORTS	15	471	600	566	528	651	526	504	459	491	456	357	438	434	397		697	176	371	471	442	455	518	472	416	584	432	599	450	367	262	6.7711	3.1296
	R-190	INF.TOT.	16	607	892	810	739	875	766	834	762	691	734	744	756	694	656	697		294	463	615	544	556	675	606	532	739	564	821	664	634	376	118.3481	38.0050
	R-211	MEM./SEN.	17	239	276	214	159	243	218	247	226	226	203	200	250	262	230	176	294		323	204	219	280	280	299	251	338	176	296	253	236	183	8.4284	3.0945
	R-212	MEM./WDS.	18	266	432	395	374	441	406	382	342	327	307	274	290	294	263	371	463	323		393	390	338	415	358	321	459	394	463	344	295	235	9.6414	4.7561
	R-220	DISG.WDS.	19	393	601	512	530	550	489	489	437	455	429	383	429	384	367	471	615	204	393		518	412	528	493	402	591	462	614	509	433	330	11.9985	6.2757
	R-231	SPELLING	20	403	504	458	415	514	470	435	377	365	325	315	364	378	334	442	544	219	390	518		490	583	494	423	731	444	543	394	262	187	7.5379	2.9569
	R-232	CAP.	21	472	504	447	372	513	394	447	391	422	350	356	417	414	364	455	556	280	338	412	490		598	546	460	821	358	509	388	379	286	27.5341	4.8987
	R-233	PUNCT.	22	429	609	554	491	625	584	554	483	502	454	427	469	460	419	518	675	280	415	528	583	598		619	542	866	582	655	508	469	304	14.9752	4.7097
	R-234	ENG.USAGE	23	417	569	489	433	537	456	476	459	471	419	385	452	446	387	472	606	299	358	493	494	546	619		528	806	426	581	440	421	289	14.8777	3.7790
	R-235	EF.EXP.	24	351	503	426	383	478	404	416	399	445	365	336	389	371	342	416	532	251	321	402	423	460	542	528		704	398	553	423	350	259	7.2370	2.6012
	R-230	ENG.TOT.	25	529	680	602	528	677	584	592	534	558	485	463	532	526	469	584	739	338	459	591	731	821	866	806	704		558	715	543	485	340	72.1619	15.1390
	R-240	WD.FUNCT.	26	273	512	472	451	508	561	470	427	404	395	369	335	338	335	432	564	176	394	462	444	358	582	426	398	558		589	475	408	286	7.9195	4.5358
	R-250	RD.COMP.	27	480	760	701	617	764	636	660	623	619	617	539	559	552	490	599	821	296	463	614	543	509	655	581	553	715	589		655	538	335	23.9941	11.1422
	R-260	CREAT.	28	355	606	533	500	550	525	533	503	479	526	516	523	444	437	450	684	253	344	509	394	388	508	440	423	543	475	655		544	346	7.4087	3.7575
	R-270	MECH.REAS.	29	324	588	449	406	484	481	558	510	456	530	576	578	473	384	367	634	236	295	433	262	379	469	421	350	485	408	538	544		468	10.9987	4.0496
	R-281	VIS.2 DIM.	30	227	342	274	260	315	311	307	276	275	274	299	321	252	243	262	376	183	235	330	187	286	304	289	259	340	266	335	346	468		12.6186	5.6343
	R-282	VIS.3 DIM.	31	163	405	355	331	365	412	393	365	302	363	406	374	306	302	248	457	146	235	285	199	291	381	307	271	375	356	407	419	562	446	7.9216	3.2268
	R-290	ABST.REAS.	32	293	518	454	411	506	503	496	417	437	419	418	407	362	322	428	571	207	320	417	341	452	521	422	418	552	445	541	488	571	450	7.9400	3.1539
	R-311	I.AR.REAS.	33	377	637	539	491	626	630	579	522	521	499	507	497	485	432	506	700	248	393	482	453	463	620	514	484	643	550	668	541	538	347	7.2672	3.4160
	R-312	II.INTROD.	34	360	601	539	498	610	677	576	474	482	487	466	447	430	406	522	679	238	419	487	486	474	650	514	457	658	577	637	529	495	352	9.1990	4.1691
	R-320	MATH.I+II.	35	402	675	589	541	675	717	631	542	546	538	529	513	497	456	563	753	265	445	530	515	513	696	562	513	711	617	711	584	562	382	16.4662	6.9408
	R-333	III.ADV.	36	101	180	180	168	179	240	176	123	149	152	161	116	065	091	168	204	058	141	154	126	123	168	095	088	156	185	169	156	139	099	2.4220	1.6434
	R-340	MATH.TOT.	37	392	661	583	536	661	713	620	526	535	520	523	498	472	442	556	739	258	441	522	501	499	678	539	491	689	609	692	574	549	374	18.8812	7.5262
	F-410	AR.COMP.	38	297	346	280	237	368	299	284	267	287	248	230	291	282	253	338	380	195	237	266	332	351	383	360	324	443	286	375	285	270	238	19.0580	29.3153
	F-420	TEL.RDG.	39	233	296	260	226	298	236	262	202	237	225	203	243	220	192	296	322	171	179	273	253	292	321	297	276	365	232	341	259	279	272	3.6462	12.3879
	F-430	CLER.CHK.	40	212	232	226	195	253	195	196	146	183	151	137	168	170	145	234	253	151	197	304	305	247	288	258	214	324	210	286	202	185	213	13.5854	23.0008
	F-440	OBJ.INSP.	41	163	205	193	167	204	171	183	167	177	166	152	176	137	118	203	229	141	163	236	153	221	218	215	166	251	179	217	207	287	307	17.9160	9.0134
	A-410	AR.COMP.	42	390	370	295	281	416	359	309	263	299	242	252	307	332	292	410	425	251	337	364	416	408	446	356	316	496	367	385	314	266	282	33.6794	10.2319
	A-420	TEL.RDG.	43	164	148	110	136	155	141	134	062	108	099	084	093	090	082	180	158	124	161	265	149	124	168	131	093	170	163	160	125	140	204	9.8051	6.7998
	A-430	CLER.CHK.	44	105	023	018	047	042	040	034	-024	-004	-025	-008	-001	-004	017	060	029	083	107	216	118	037	035	025	-037	046	056	017	015	008	104	32.4276	13.8793
	A-440	OBJ.INSP.	45	115	125	119	123	127	112	115	102	097	102	094	099	068	068	140	142	112	133	211	078	124	130	126	070	139	138	122	136	217	276	20.2322	7.0850
	A-500	PREF.	46	205	142	110	128	177	168	122	084	108	074	101	114	150	128	194	176	129	193	201	207	182	199	114	097	206	188	135	127	085	129	38.5533	11.7862
	R-601	SOCIAB.	47	-048	-121	-127	-070	-116	-074	-104	-121	-108	-106	-101	-128	-110	-092	-089	-135	-032	-002	017	-081	-141	-124	-139	-157	-162	-048	-151	-110	-114	-044	15.9640	13.6318
	R-602	SOC.SENSI.	48	020	-085	-087	-039	-072	-047	-055	-097	-092	-101	-075	-082	-086	-050	-042	-088	026	029	105	-009	-075	-089	-095	-145	-102	-036	-117	-079	-080	018	38.7083	16.0149
	R-603	IMPULS.	49	022	-010	-007	032	-006	006	-002	-009	-029	-006	-006	-024	-037	-014	021	-006	043	057	116	-037	-031	-017	-020	-068	-039	046	-031	008	066	154	22.5484	7.4709
	R-604	VIGOR	50	141	-036	-027	-010	-004	-043	-027	-069	-041	-059	-047	-010	-023	000	041	-023	038	004	062	006	-018	-061	-054	-106	-055	-038	-064	-036	-087	013	58.1934	27.2472
	R-605	CALMNESS	51	282	159	152	181	191	138	096	085	141	074	083	160	123	170	248	196	080	131	232	185	174	154	147	110	196	144	175	148	080	114	5.5476	2.8332
	R-606	TIDINESS	52	195	168	163	194	178	164	138	112	121	110	115	124	079	131	162	191	103	137	221	175	143	159	133	102	181	151	190	148	071	083	3.5711	2.1652
	R-607	CULTURE	53	078	-007	010	032	001	006	-016	-028	-023	003	-005	016	-005	021	009	006	022	-002	055	022	-028	-042	-042	-046	-036	-026	-016	003	-043	014	1.7750	1.5329
	R-608	LEADER.	54	256	222	193	201	250	200	167	143	182	152	127	192	166	178	295	256	086	153	254	205	188	199	177	161	235	180	246	191	125	126	3.3540	2.0632
	R-609	SELF-CONF.	55	232	232	194	218	246	232	204	157	169	165	179	182	168	193	209	264	114	139	223	191	179	217	174	142	230	198	242	211	151	143	3.4217	2.2665
	R-610	MATUR.	56	226	180	147	184	207	178	127	114	141	108	118	150	113	162	183	206	097	139	211	202	183	198	151	146	223	150	198	165	087	125	4.6619	2.6749
			57	194	134	123	170	157	142	099	089	093	057	069	088	093	147	143	157	065	096	171	163	131	146	109	081	161	143	150	119	022	058	4.1839	2.2886
			58	029	058	082	122	089	129	033	036	029	015	000	-023	-017	037	114	069	015	078	126	115	010	065	016	014	052	122	079	070	-037	011	1.1870	1.2894
			59	230	238	224	212	258	215	192	174	184	180	190	189	174	209	233	275	108	164	211	191	181	198	184	154	230	198	257	221	146	119	4.5581	2.2294
			60	226	216	171	214	243	256	201	141	159	154	180	174	139	190	188	254	124	171	237	243	176	230	163	142	241	250	254	197	110	132	9.7239	5.0135

*Decimal points omitted.

TABLE 2-7a (continued)*

Var.	Code	Description		R-282 VIS.3 DIM. 31	R-290 ABST.REAS. 32	R-311 I.AR.REAS. 33	R-312 II.INTROD. 34	R-320 MATH.I+II. 35	R-333 III.ADV. 36	R-340 MATH.TOT. 37	P-410 AR.COMP. 38	P-420 TEL.RDG. 39	P-430 CLER.CHK. 40	P-440 OBJ.INSP. 41	R-410 AR.COMP. 42	R-420 TEL.RDG. 43	R-430 CLER.CHK. 44	R-440 OBJ.INSP. 45	A-410 AR.COMP. 46	A-420 TEL.RDG. 47	A-430 CLER.CHK. 48	A-440 OBJ.INSP. 49	A-500 PREF. 50	R-601 SOCIAB. 51	R-602 SOC.SENSI. 52	R-603 IMPULS. 53	R-604 VIGOR 54	R-605 CALMNESS 55	R-606 TIDINESS 56	R-607 CULTURE 57	R-608 LEADER. 58	R-609 SELF-CONF. 59	R-610 MATUR. 60	MEAN	S.D.
1	R-101	SCREN.	1	163	293	377	360	402	101	392	297	233	212	163	390	164	105	115	205	-048	020	022	141	282	195	078	256	232	226	194	029	230	226	10.8940	1.7803
2	R-102	VOCAB.	2	405	518	637	601	675	180	661	346	296	232	205	370	148	023	125	142	-121	-085	-010	-036	159	168	-007	222	232	180	134	058	238	216	10.7972	4.1468
3	R-103	LIT.	3	355	454	539	539	589	180	583	280	260	226	193	295	110	018	119	110	-127	-087	-007	-027	152	163	010	193	194	147	123	082	224	171	10.0587	4.1989
4	R-104	MUSIC	4	331	411	491	498	541	168	536	237	226	195	167	281	136	047	123	128	-070	-039	032	-010	181	194	032	201	218	184	170	122	212	214	4.7928	2.8210
5	R-105	SOC.STUD.	5	365	506	626	610	675	179	661	368	298	253	204	416	155	042	127	177	-116	-072	-006	-004	191	178	001	250	246	207	157	089	258	243	12.7236	5.6505
6	R-106	MATH.	6	412	503	630	677	717	240	713	299	236	195	171	359	141	040	112	168	-074	-047	006	-043	138	164	006	200	232	178	142	129	215	258	6.9839	3.9220
7	R-107	PHYF.SCI.	7	393	496	579	576	631	176	620	284	262	196	183	309	134	034	115	122	-104	-055	-002	-027	096	138	-016	167	204	127	099	033	192	201	8.3172	3.8673
8	R-108	BIOL.SCI.	8	365	417	522	474	542	123	526	267	202	146	167	263	062	-024	102	084	-121	-097	-009	-069	085	112	-028	143	157	114	089	036	174	141	5.3448	2.4428
9	R-109	SCI.ATT.	9	302	437	521	482	546	149	535	287	237	183	177	299	108	-004	097	108	-108	-092	-029	-041	141	121	-023	182	169	141	093	029	184	159	5.1050	2.0529
10	R-110	AERO.-SP.	10	363	419	499	487	538	152	529	248	225	151	166	242	099	-025	102	074	-106	-101	-006	-059	074	110	003	152	165	108	057	015	180	154	4.0498	2.3358
11	R-111	ELEC.	11	406	418	507	466	529	161	523	230	203	137	152	252	084	-008	094	101	-101	-075	-006	-047	083	115	-005	127	179	118	069	000	190	180	7.6904	3.9699
12	R-112	MECH.	12	374	407	497	447	513	116	498	291	243	168	176	307	093	-001	099	114	-128	-082	-024	-010	160	124	016	192	182	150	088	-023	189	174	10.3870	3.5937
13	R-113	FARM.	13	306	362	485	430	497	065	472	282	220	170	137	332	090	-004	068	150	-110	-086	-037	-023	123	079	-005	166	168	113	093	-017	174	139	7.0815	2.6166
14	R-114	HOME EC.	14	302	322	432	406	456	091	442	253	192	145	118	292	082	017	068	128	-092	-050	-014	000	170	131	021	178	193	162	147	037	209	190	7.3446	2.9086
15	R-115	SPORTS	15	248	428	506	522	563	168	556	338	296	234	203	410	180	060	140	194	-089	-042	021	041	248	162	009	295	209	183	143	114	233	188	6.7711	3.1296
16	R-190	INF.TOT.	16	457	571	700	679	753	204	739	380	322	253	229	425	158	029	142	176	-135	-088	-006	-023	196	191	006	256	264	206	157	069	275	254	118.3481	38.0050
17	R-211	MEM./SEN.	17	146	207	248	238	265	058	258	195	171	151	141	251	124	085	112	129	-032	026	043	038	080	103	022	086	114	097	065	015	108	124	8.4284	3.0945
18	R-212	MEM./WDS.	18	235	320	393	419	445	141	441	237	179	197	163	337	161	107	133	193	-002	029	057	004	131	137	-002	153	139	139	096	078	164	171	9.6414	4.7561
19	R-220	DISC.WDS.	19	285	417	482	487	530	154	522	266	273	304	236	364	265	216	211	201	017	105	116	062	232	221	055	254	223	211	171	126	211	237	11.9985	6.2757
20	R-231	SPELLING	20	199	341	453	486	515	126	501	332	253	305	153	416	149	118	078	207	-081	-009	-037	006	185	175	022	205	191	202	163	115	191	243	7.5379	2.9569
21	R-232	CAP.	21	291	452	463	474	513	123	499	351	292	247	221	408	124	037	124	182	-141	-075	-031	-018	174	143	-028	188	179	183	131	010	181	176	27.5341	4.8987
22	R-233	PUNCT.	22	381	521	620	650	696	168	678	383	321	268	218	446	168	035	130	199	-124	-089	-017	-061	154	159	-042	199	217	198	146	065	198	230	14.9752	4.7097
23	R-234	ENG.USAGE	23	307	422	514	514	562	095	539	366	297	258	215	356	131	025	126	114	-139	-095	-020	-054	147	133	-042	177	174	151	109	016	184	163	14.8777	3.7790
24	R-235	EF.EXP.	24	271	418	484	457	513	088	491	324	276	214	166	316	093	-037	070	097	-157	-145	-068	-106	110	102	-046	161	142	146	081	014	154	142	7.2370	2.6012
25	R-230	ENG.TOT.	25	375	552	643	658	711	156	689	443	365	324	251	496	170	046	139	206	-162	-102	-039	-055	196	181	-036	235	230	223	161	052	230	241	72.1619	15.1390
26	R-240	WD.FUNCT.	26	356	445	550	577	617	185	609	286	232	210	179	367	163	056	138	188	-048	-030	046	-038	144	151	-026	180	198	150	143	123	198	250	7.9195	4.5358
27	R-250	RD.COMP.	27	407	541	668	637	711	169	692	375	341	286	217	385	160	017	122	135	-151	-111	-031	-064	175	190	-016	246	242	198	150	079	257	254	23.9941	11.1422
28	R-260	CREAT.	28	419	488	541	529	584	156	574	285	259	202	207	314	125	015	136	127	-110	-079	008	-036	148	148	003	191	211	165	119	070	221	197	7.4087	3.7575
29	R-270	MECH.REAS.	29	562	571	538	495	562	139	549	270	279	185	287	266	140	008	217	085	-114	-080	066	-087	080	071	-043	125	151	087	022	-037	146	110	10.9987	4.0496
30	R-281	VIS.2 DIM.	30	446	450	347	352	382	099	374	238	272	213	307	282	204	104	276	129	-044	018	154	013	114	083	014	126	149	125	058	011	119	132	12.6186	5.6343
31	R-282	VIS.3 DIM.	31		525	430	422	465	106	453	197	239	167	238	190	106	-011	188	056	-112	-092	070	-102	003	035	-047	075	070	056	010	-018	079	091	7.9216	3.2268
32	R-290	ABST.REAS.	32	525		539	539	589	121	569	344	332	253	308	337	156	020	212	106	-146	-098	030	-103	085	101	-079	141	130	115	063	007	126	123	7.9400	3.1539
33	R-311	I.AR.REAS.	33	430	539		671	895	193	868	377	283	225	186	443	156	017	108	200	-102	-088	-020	-083	139	139	-030	198	208	168	116	067	189	225	7.2672	3.4160
34	R-312	II.INTROD.	34	422	539	671		931	259	914	377	284	240	196	456	163	023	122	215	-096	-088	-005	-072	138	124	-032	198	218	163	104	080	201	240	9.1990	4.1691
35	R-320	MATH.I+II.	35	465	589	895	931		250	976	412	310	255	209	492	174	022	126	228	-108	-096	-013	-085	151	143	-034	216	233	181	120	081	214	255	16.4662	6.9408
36	R-333	III.ADV.	36	106	121	193	259	250		449	041	029	042	021	156	062	045	032	146	035	032	036	019	048	062	023	078	083	072	047	071	060	101	2.4220	1.6434
37	R-340	MATH.TOT.	37	453	569	868	914	976	449		388	291	244	198	487	175	031	124	242	-092	-081	-004	-073	150	144	-026	217	232	181	120	091	210	257	18.8812	7.5262
38	F-410	AR.COMP.	38	197	344	377	377	412	041	388		44	322	249	535	042	-086	084	210	-358	-254	-141	-116	104	030	-076	106	084	108	048	-039	118	099	19.0580	29.3153
39	F-420	TEL.RDG.	39	239	332	283	284	310	029	292	441		382	442	260	453	056	282	064	-457	-118	002	-051	138	089	-053	111	106	130	085	-004	118	109	3.6462	12.3879
40	F-430	CLER.CHK.	40	167	253	225	240	255	042	244	322	382		375	278	245	510	291	055	-103	111	100	-004	133	102	-006	133	115	107	099	034	110	138	13.5854	23.0008
41	F-440	OBJ.INSP.	41	238	308	186	196	209	021	198	249	442	375		246	318	236	886	078	-085	093	473	067	110	090	008	102	100	117	078	032	105	091	17.9160	9.0134
42	R-410	AR.COMP.	42	190	337	443	456	492	156	487	535	260	278	246		306	235	245	714	069	138	169	118	223	149	060	229	214	225	172	103	191	246	33.6794	10.2319
43	R-420	TEL.RDG.	43	106	156	156	163	174	062	175	042	453	245	318	309		432	439	319	586	382	450	244	177	143	080	143	148	165	133	109	125	158	9.8051	6.7998
44	R-430	CLER.CHK.	44	-011	020	017	023	022	045	031	-086	056	510	236	235	432		385	343	380	911	445	297	154	144	139	137	137	137	147	111	172	32.4276	13.8793
45	R-440	OBJ.INSP.	45	188	212	108	122	126	032	124	084	282	291	886	245	439	385		214	182	305	828	187	124	103	061	112	110	133	095	087	101	107	20.2322	7.0850
46	A-410	AR.COMP.	46	056	106	200	215	228	146	242	-210	-064	055	078	714	319	343	214		376	370	312	233	173	148	133	177	179	170	159	151	123	203	38.5533	11.7862
47	A-420	TEL.RDG.	47	-112	-146	-102	-096	-108	035	-092	-358	-457	-103	-085	069	586	380	182	376		489	447	289	051	062	128	042	051	047	055	112	017	058	15.9640	13.6318
48	A-430	CLER.CHK.	48	-092	-098	-088	-088	-096	032	-081	-254	-118	111	093	438	382	911	305	370	489		467	345	114	117	163	094	103	107	111	154	076	133	38.7083	16.0149
49	A-440	OBJ.INSP.	49	070	030	-020	-005	-013	036	-004	-141	002	120	473	169	450	445	828	312	447	467		274	103	087	107	088	087	111	086	125	064	094	22.5484	7.4709
50	A-500	PREF.	50	-102	-103	-083	-072	-085	019	-079	-116	-051	-004	067	118	244	297	187	233	289	345	274		223	178	292	185	223	186	194	202	120	207	58.1934	27.2472
51	R-601	SOCIAB.	51	003	085	139	138	151	048	150	104	138	133	110	223	177	154	124	173	051	114	103	223		507	291	532	482	482	500	346	379	465	5.5476	2.8332
52	R-602	SOC.SENSI.	52	035	101	139	124	143	062	144	030	089	102	090	149	143	144	103	148	062	117	087	178	507		308	494	583	552	584	425	287	611	3.5711	2.1652
53	R-603	IMPULS.	53	-047	-079	-030	-032	-034	023	-026	-076	-053	-006	008	060	080	139	061	133	128	163	107	292	291	308		292	271	254	285	316	135	292	1.7750	1.5329
54	R-604	VIGOR	54	075	141	198	198	216	078	217	106	111	133	102	229	143	137	112	177	042	094	088	185	532	494	292		471	503	465	370	318	554	3.3540	2.0632
55	R-605	CALMNESS	55	070	130	208	218	233	083	232	084	106	115	100	214	148	137	110	179	051	103	087	223	482	583	271	471		546	516	404	433	625	3.4217	2.2665
56	R-606	TIDINESS	56	056	115	168	163	181	072	181	108	130	107	117	225	165	137	133	170	047	107	111	186	482	552	254	503	546		604	394	340	652	4.6419	2.6749
57	R-607	CULTURE	57	010	063	116	104	120	047	120	048	085	099	078	172	133	137	095	159	055	111	086	194	500	584	285	465	516	604		435	297	578	4.1839	2.2886
58	R-608	LEADER.	58	-018	007	067	080	081	071	091	-039	-004	034	032	103	109	147	087	151	112	154	125	202	346	425	316	370	404	394	435		252	498	1.1870	1.2894
59	R-609	SELF-CONF.	59	079	126	189	201	214	060	210	118	118	110	105	191	125	111	101	123	017	076	064	120	379	287	135	318	433	340	297	252		412	4.5581	2.2294
60	R-610	MATUR.	60	091	123	225	240	255	101	257	099	109	138	091	246	158	172	107	203	058	133	094	207	465	611	292	554	625	652	578	498	412		9.7239	5.0135

*Decimal points omitted.

TABLE 2-7b

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-9 Girls, Subsample 0 (N=3864)

Var.	Code	Description		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	MEAN	S.D.
		R-101 SCREEN.	1		348	331	311	396	255	300	260	336	172	250	274	373	414	279	470	166	209	307	309	409	317	292	220	414	228	378	234	225	190	11.3641	1.3243
		R-102 VOCAB.	2	348		684	652	722	619	580	596	548	438	415	512	581	524	527	864	295	446	563	504	463	623	530	439	677	565	752	564	495	321	9.7616	3.9758
		R-103 LIT.	3	331	684		648	687	569	558	551	482	414	352	416	482	436	460	796	245	385	490	441	416	557	465	391	594	478	686	498	424	265	9.7792	3.8521
		R-104 MUSIC	4	311	652	648		643	545	504	487	451	383	324	381	447	445	476	750	217	372	497	428	390	519	442	401	573	484	640	485	409	286	5.3991	2.8978
		R-105 SOC.STUD.	5	396	722	687	643		599	617	542	516	387	397	441	553	509	522	849	274	437	508	491	454	600	494	407	649	553	731	499	425	292	11.2422	4.9747
		R-106 MATH.	6	255	619	569	545	599		565	476	432	352	384	410	434	422	414	739	233	394	453	438	350	571	403	331	559	562	594	474	456	293	6.3056	3.5149
		R-107 PHYS.SCI.	7	300	640	558	504	617	565		566	451	414	476	460	538	451	433	776	277	398	423	409	391	531	432	345	562	498	620	449	457	286	6.8742	3.4619
		R-108 BIOL.SCI.	8	260	596	551	487	542	476	566		433	350	350	418	517	448	424	707	234	351	373	344	338	470	402	321	498	437	583	435	424	248	4.5846	2.2021
		R-109 SCI.ATT.	9	336	548	482	451	516	432	451	433		286	294	375	437	446	358	642	228	321	421	348	396	481	390	379	528	424	580	419	395	277	5.2089	1.9675
		R-110 AERO.-SP.	10	172	438	414	383	387	352	414	350	286		313	322	330	270	333	526	167	218	265	207	203	292	247	213	308	261	410	357	307	188	2.5241	1.4005
		R-111 ELEC.	11	250	415	352	324	397	384	476	350	294	313		391	370	315	318	559	165	246	238	261	243	311	251	203	338	287	384	307	292	154	5.1654	2.5376
		R-112 MECH.	12	274	512	416	381	441	410	460	418	375	322	391		526	437	369	639	195	262	329	273	302	375	331	249	408	300	450	395	400	249	6.9009	2.7896
		R-113 FARM.	13	373	581	482	447	553	434	538	517	437	330	370	526		515	449	716	234	348	402	373	395	492	420	337	537	415	586	435	426	280	6.5179	2.5892
		R-114 HOME EC.	14	414	524	436	445	509	423	451	448	446	270	315	437	515		385	674	206	282	326	338	418	469	409	335	525	358	520	409	385	287	11.1121	3.3847
		R-115 SPORTS	15	279	527	460	476	522	414	433	424	358	333	318	369	449	385		638	161	284	352	329	333	416	332	294	452	371	507	396	346	248	4.6136	2.3151
		R-190 INF.TOT.	16	470	864	796	750	849	739	776	707	642	526	559	639	716	674	638		315	485	586	538	527	685	568	472	741	613	819	615	564	369	107.3579	31.3333
		R-211 MEM./SEN.	17	166	295	245	217	274	233	277	234	228	167	165	195	234	206	161	319		362	245	227	256	319	270	219	344	279	346	270	226	187	9.1654	3.0453
		R-212 MEM./WDS.	18	209	446	385	372	437	394	398	351	321	218	246	262	348	282	284	485	362		372	393	298	440	312	281	457	432	457	333	299	237	10.8416	5.0116
		R-220 DISG.WDS.	19	307	563	490	497	508	453	423	373	421	265	238	329	402	396	352	586	245	372		511	428	561	486	384	626	476	593	463	399	338	13.1294	6.5078
		R-231 SPELLING	20	309	504	441	428	491	438	409	344	348	207	261	273	373	338	329	538	227	393	511		443	566	455	343	723	472	535	331	266	204	9.0344	2.8132
		R-232 CAP.	21	409	463	416	390	454	350	391	338	396	203	243	302	395	418	333	527	256	298	428	443		561	478	370	785	360	504	346	322	271	29.0740	4.0591
		R-233 FUNCT.	22	317	623	537	519	600	571	531	470	481	292	311	375	492	469	416	695	319	440	561	566	561		571	452	865	603	669	467	466	346	16.9542	4.5414
		R-234 ENG.USAGE	23	292	530	465	442	494	403	432	402	390	247	251	331	420	409	332	568	270	312	486	455	478	571		439	760	438	562	379	367	279	16.0184	3.2147
		R-235 EF.EXP.	24	220	439	391	401	407	331	345	321	379	213	203	249	337	335	294	472	219	281	384	343	370	452	439		629	373	500	349	317	216	8.0590	2.2718
		R-230 ENG.TOT.	25	414	677	594	573	649	559	562	498	528	308	338	408	537	525	452	741	344	457	626	723	785	865	769	629		597	731	496	465	355	79.1400	13.0439
		R-240 WD.FUNCT.	26	228	565	478	484	553	562	498	437	424	261	287	300	415	358	371	613	279	432	476	472	560	603	438	373	597		630	465	423	297	9.0546	5.0822
		R-250 RD.COMP.	27	378	752	686	640	731	594	620	583	580	410	384	450	586	520	507	819	346	457	593	535	504	689	562	500	731	630		608	508	342	25.6416	10.3316
		R-260 CREAT.	28	234	564	498	483	499	474	449	435	419	357	307	395	435	409	396	615	270	333	463	331	346	467	379	349	496	465	608		462	318	7.0329	3.4501
		R-270 MECH.REAS.	29	225	495	424	409	425	456	457	424	395	307	292	400	426	385	346	564	226	299	399	266	322	466	367	317	465	423	508	462		434	7.7174	3.3026
		R-281 VIS.2 DIM.	30	190	321	265	266	292	293	286	248	277	188	154	249	280	287	248	369	187	237	338	204	271	346	279	216	355	297	342	318	434		10.7433	5.4370
		R-282 VIS.3 DIM.	31	127	394	340	324	369	379	373	330	311	233	209	308	324	333	272	452	175	257	326	220	275	392	280	265	385	385	442	398	523	436	7.2707	2.8575
		R-290 ABST.REAS.	32	260	531	477	462	499	487	463	401	446	283	239	340	407	412	382	592	247	354	464	368	428	546	413	379	571	496	598	468	530	419	7.8817	3.1804
		R-311 I.AR.REAS.	33	259	615	521	504	595	576	541	464	483	309	332	399	477	452	425	680	288	402	455	442	417	610	453	417	622	581	661	478	478	327	7.0204	3.2757
		R-312 II.INTROD.	34	295	600	539	519	601	659	542	463	436	338	340	356	456	415	425	684	279	418	477	481	442	634	464	393	645	601	631	479	483	337	9.3621	3.9327
		R-320 MATH.I+II.	35	308	670	586	566	660	686	597	512	505	358	371	415	514	476	469	753	313	453	515	511	476	688	507	446	700	653	711	528	530	367	16.3825	6.5302
		R-333 III.ADV.	36	061	147	168	150	130	224	129	123	105	137	125	093	094	085	137	184	062	128	128	129	081	152	102	090	146	158	146	176	143	121	2.1501	1.5264
		R-340 MATH.TOT.	37	301	657	583	561	644	689	585	505	494	364	373	407	500	463	468	743	305	451	509	505	461	675	498	436	685	644	696	531	526	369	18.5326	6.9988
		F-410 AR.COMP.	38	297	366	279	295	362	301	297	234	295	148	188	227	315	303	264	402	199	285	313	369	370	504	326	311	470	328	391	262	234	237	25.6972	23.4147
		F-420 TBL.RDG.	39	239	257	196	220	255	192	210	141	228	102	132	159	202	220	181	281	172	175	300	211	301	296	240	206	337	231	305	230	219	238	6.6957	9.0792
		F-430 CLER.CHK.	40	220	224	194	206	240	183	190	180	178	102	121	135	168	181	183	254	141	190	364	294	262	273	220	182	326	235	275	188	184	221	21.0254	21.0131
		F-440 OBJ.INSP.	41	212	240	216	230	233	199	211	183	211	114	110	163	205	218	192	281	171	192	315	189	240	267	211	184	293	230	292	254	280	338	19.5800	7.9154
		R-410 AR.COMP.	42	375	382	306	313	422	365	327	266	285	152	239	236	340	343	299	448	244	348	395	442	407	458	322	280	510	385	410	286	267	284	36.4231	10.6985
		R-420 TBL.RDG.	43	219	199	139	155	214	167	158	093	149	062	111	115	140	150	135	212	159	197	324	208	208	231	152	127	250	214	233	184	175	222	10.3879	6.1130
		R-430 CLER.CHK.	44	123	022	005	011	066	050	035	-013	-009	-009	035	-005	-014	021	027	033	061	088	265	136	089	067	029	002	082	079	046	034	062	139	35.6325	14.1303
		R-440 OBJ.INSP.	45	188	186	172	190	191	162	159	145	156	088	086	121	148	170	154	221	153	175	305	156	176	206	148	121	218	196	229	217	243	320	21.4337	6.6240
		A-410 AR.COMP.	46	284	243	205	202	300	267	220	185	165	095	182	150	224	236	206	305	180	256	299	321	274	317	193	146	338	275	262	190	179	205	39.9984	10.6718
		A-420 TBL.RDG.	47	056	011	-009	-011	033	034	003	-016	-028	-019	018	-004	-013	-019	000	005	042	091	137	069	-021	015	-035	-035	-001	056	008	018	017	062	14.0802	9.0273
		A-430 CLER.CHK.	48	052	-077	-085	-083	-029	-022	-044	-082	-094	-059	-012	-069	-096	-059	-042	-077	011	022	163	034	-056	-043	-067	-082	-050	-010	-071	-045	-009	071	40.5016	14.9912
		A-440 OBJ.INSP.	49	121	084	086	104	103	085	065	069	059	040	041	047	051	079	078	106	097	118	230	084	065	092	043	021	085	115	108	128	149	234	23.2875	6.8153
		A-500 PREF.	50	207	045	037	030	075	015	026	011	004	022	071	038	062	059	055	065	067	044	115	051	055	002	-001	-072	016	-003	015	017	-028	023	56.6836	21.8031
		R-601 SOCIAB.	51	279	143	118	175	137	087	068	070	141	041	082	090	095	142	152	165	072	111	221	152	191	144	132	120	196	097	152	121	073	094	6.6700	2.9031
		R-602 SOC.SENSI.	52	228	255	255	260	254	196	156	167	199	117	116	136	141	197	174	275	111	188	258	191	203	230	188	155	258	191	279	200	146	100	4.5300	2.3075
		R-603 IMPULS.	53	115	101	109	106	101	084	060	078	059	081	081	075	083	083	113	124	009	065	089	045	025	061	048	016	053	048	100	069	056	052	1.7943	1.5888
		R-604 VIGOR	54	196	201	186	204	202	135	153	145	161	111	129	146	167	151	215	235	089	115	214	146	155	185	146	131	203	133	212	164	160	124	3.4379	2.1256
		R-605 CALMNESS	55	227	234	210	229	233	211	180	194	186	131	148	150	185	198	193	276	112	150	203	159	185	218	165	139	233	177	246	194	163	108	3.7629	2.4396
		R-606 TIDINESS	56	239	196	184	196	210	179	154	145	151	090	136	134	143	173	139	234	128	162	220	182	192	230	169	137	247	169	220	151	130	090	5.6172	2.7173
		R-607 CULTURE	57	235	274	270	283	283	204	190	209	202	130	161	171	188	190	199	306	123	181	226	199	186	245	178	151	257	216	280	199	141	088	5.1571	2.2314
		R-608 LEADER.	58	053	102	117	142	127	129	082	100	074	048	068	039	031	043	126	126	034	070	138	085	032	087	058	050	081	096	114	097	058	024	1.2267	1.3120
		R-609 SELF-CONF.	59	190	190	170	176	164	147	136	122	154	115	091	115	130	129	152	205	098	110	190	141	142	150	124	111	179	133	194	137	113	072	4.7922	2.3697
		R-610 MATUR.	60	216	269	260	240	279	267	222	196	164	151	192	167	181	172	203	308	143	197	236	219	156	254	172	147	252	235	217	204	151	090	10.2878	4.9956

*Decimal points omitted.

TABLE 2-7b (continued)*

Var.	Code	Description		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	MEAN	S.D.
				R-282	VIS.3 DIM.	R-290	ABST.REAS.	R-311	I.AR.REAS.	R-312	II.INTROD.	R-320	MATH.I+II.	R-333	III.ADV.	R-340	MATH.TOT.	F-410	AR.COMP.	F-420	TEL.RDG.	F-430	CLER.CHK.	F-440	OBJ.INSP.	R-410	AR.COMP.	R-420	TEL.RDG.	R-430	CLER.CHK.	R-440	OBJ.INSP.	A-410	AR.COMP.	A-420	TEL.RDG.	A-430	CLER.CHK.	A-440	OBJ.INSP.	A-500	PREF.	R-601	SOCIAB.	R-602	SOC.SENSI.	R-603	IMPULS.	R-604	VIGOR	R-605	CALMNESS	R-606	TIDINESS	R-607	CULTURE	R-608	LEADER.	R-609	SELF-CONF.	R-610	MATUR.		
1	R-101	SCREEN.	1	127	260	259	295	308	061	301	297	239	220	212	375	219	123	188	284	056	052	121	207	279	228	115	196	227	239	235	053	190	216	11.3641	1.3243
2	R-102	VOCAB.	2	394	531	615	600	670	147	657	366	257	224	240	382	199	022	186	243	011	-077	084	045	143	255	101	201	234	196	274	102	190	269	9.7616	3.9758
3	R-103	LIT.	3	340	477	521	539	586	168	583	279	196	194	216	306	139	005	172	205	-009	-085	086	037	118	255	109	186	210	184	270	117	170	260	9.7792	3.8521
4	R-104	MUSIC	4	324	462	504	519	566	150	561	295	220	206	230	313	155	011	190	202	-011	-083	104	030	175	260	106	204	229	196	283	142	176	240	5.3991	2.8978
5	R-105	SOC.STUD.	5	369	499	595	601	660	130	644	362	255	240	233	422	214	066	191	300	033	-029	103	075	137	254	101	202	233	210	283	127	164	279	11.2422	4.9767
6	R-106	MATH.	6	379	487	576	659	686	224	689	301	192	183	199	365	167	050	162	267	034	-022	085	015	087	196	084	135	211	179	204	129	147	267	6.3056	3.5149
7	R-107	PHYS.SCI.	7	373	463	541	542	597	129	585	297	210	190	211	327	158	035	159	220	003	-044	065	026	068	156	060	153	180	154	190	082	136	222	6.8742	3.4619
8	R-108	BIOL.SCI.	8	330	401	464	463	512	123	505	234	141	140	185	266	093	-013	145	185	-016	-082	069	011	070	167	078	145	196	145	209	100	122	196	4.5846	2.2821
9	R-109	SCI.ATT.	9	311	446	483	436	505	105	494	295	228	178	211	285	149	-009	156	165	-028	-094	059	004	141	199	059	161	186	151	202	074	154	164	5.2089	1.9675
10	R-110	AERO.-SP.	10	233	283	309	338	358	137	364	148	102	102	114	152	062	-009	088	095	-019	-059	040	022	041	117	081	111	131	090	130	048	115	151	2.5241	1.6005
11	R-111	ELEC.	11	209	239	332	340	371	125	373	188	132	121	110	239	111	035	086	182	018	-012	041	071	082	116	081	129	148	136	161	063	091	192	5.1654	2.5376
12	R-112	MECH.	12	308	340	399	356	415	093	407	227	159	135	163	236	115	-005	121	150	-004	-069	047	038	090	136	075	146	150	134	171	039	115	167	6.9009	2.7896
13	R-113	FARM.	13	324	407	477	456	514	094	500	315	202	168	205	340	140	-014	148	224	-013	-096	051	062	095	141	083	167	185	143	188	031	130	181	6.5179	2.5892
14	R-114	HOME EC.	14	333	412	452	415	476	085	463	303	220	181	218	343	150	021	170	236	-019	-059	079	059	142	197	083	151	198	173	190	043	129	172	11.1121	3.3847
15	R-115	SPORTS	15	272	382	425	425	469	137	468	264	181	163	192	293	135	027	154	206	000	-042	078	055	152	174	113	215	193	139	199	126	152	203	4.6136	2.3151
16	R-190	INF.TOT.	16	452	592	680	684	753	184	743	402	281	254	281	448	212	033	221	305	005	-077	106	065	165	275	124	235	276	234	306	126	205	308	107.3579	31.3333
17	R-211	MEM./SEN.	17	175	247	288	279	313	062	305	199	172	141	171	244	159	061	152	180	042	011	097	067	072	111	009	089	112	128	123	034	098	143	9.1654	3.0453
18	R-212	MEM./WDS.	18	257	354	402	418	453	128	451	285	175	190	192	348	197	088	175	256	091	022	118	044	111	168	065	115	150	162	181	070	110	197	10.8416	5.0116
19	R-220	DISG.WDS.	19	326	464	455	477	515	128	509	313	300	364	315	395	324	265	305	299	137	163	230	115	221	258	089	214	203	220	226	138	190	236	13.1294	6.5078
20	R-231	SPELLING	20	220	368	442	481	511	129	505	369	211	294	189	442	208	136	156	321	069	034	084	051	152	191	045	146	159	182	199	085	141	219	9.0344	2.8132
21	R-232	CAP.	21	275	428	417	442	476	081	461	370	301	262	240	407	208	069	176	274	-021	-036	065	055	191	203	025	135	185	192	186	032	148	156	78.0740	4.0591
22	R-233	FUNCT.	22	392	546	610	634	688	152	675	404	296	273	267	458	231	067	206	317	015	-043	092	002	144	230	061	185	238	230	245	087	150	254	9.9542	4.5414
23	R-234	ENG.USAGE	23	280	413	453	464	507	102	495	326	240	220	211	322	152	029	148	193	-035	-067	043	-001	132	188	048	146	165	169	178	058	124	172	16.0184	3.2147
24	R-235	EF.EXP.	24	265	379	417	393	446	090	436	311	206	182	184	280	127	002	121	146	-035	-082	021	-072	120	155	016	131	139	137	151	050	111	147	8.0590	2.2718
25	R-230	ENG.TOT.	25	385	571	622	645	700	146	685	470	337	326	293	510	250	082	218	338	-001	-050	085	016	196	258	053	203	233	245	257	081	179	252	79.1400	13.0434
26	R-240	WD.FUNCT.	26	385	496	581	601	653	158	644	328	231	235	230	385	214	079	196	275	056	-010	115	-003	097	191	048	133	177	169	216	096	135	235	9.0546	5.0822
27	R-250	RD.COMP.	27	442	598	661	631	711	146	696	391	305	275	292	410	233	046	229	262	008	-071	108	015	152	279	100	212	246	220	280	114	194	277	25.6416	10.3316
28	R-260	CREAT.	28	398	468	476	479	528	176	531	262	230	188	254	286	184	034	217	190	018	-045	128	017	121	200	069	164	194	151	199	097	137	204	7.0329	3.4501
29	R-270	MECH.REAS.	29	523	530	478	483	530	143	526	234	219	184	280	262	175	062	243	179	017	-009	149	-028	073	146	056	150	163	130	141	058	113	151	7.7174	3.3026
30	R-281	VIS.2 DIM.	30	436	419	327	337	367	121	369	237	238	221	338	284	222	139	320	205	062	071	234	023	094	100	052	144	108	090	088	024	072	090	10.7433	5.4370
31	R-282	VIS.3 DIM.	31		504	425	423	468	134	466	211	210	182	283	227	149	060	248	149	-010	-009	155	-075	016	089	011	096	113	058	103	006	062	107	7.2707	2.8575
32	R-290	ABST.REAS.	32	504		545	549	604	144	595	350	295	239	332	349	200	048	260	211	-027	-052	122	-055	102	164	028	157	169	143	158	061	115	162	7.8817	3.1804
33	R-311	I.AR.REAS.	33	425	545		638	886	152	860	364	231	205	205	403	181	018	149	272	013	-073	052	-025	092	200	060	157	200	168	208	077	125	240	7.0204	3.2757
34	R-312	II.INTROD.	34	423	549	638		922	207	906	396	246	215	232	472	214	059	186	342	042	-026	093	-007	104	175	063	151	196	173	203	075	153	255	9.3621	3.9327
35	R-320	MATH.I+II.	35	468	604	886	922		201	977	421	264	232	243	487	220	045	186	342	032	-053	082	-017	109	206	068	170	218	189	227	084	155	274	16.3825	6.5302
36	R-333	III.ADV.	36	334	144	152	207	201		406	039	037	040	066	106	072	045	074	113	061	038	069	049	040	072	052	043	066	051	064	046	064	083	2.1501	1.5264
37	R-340	MATH.TOT.	37	466	595	860	906	977	406		402	254	226	241	477	221	052	190	344	043	-041	092	-005	111	208	075	168	218	187	225	088	159	273	18.5326	6.9988
38	F-410	AR.COMP.	38	211	350	364	396	421	039	402		377	286	283	676	209	049	174	172	-096	-072	012	-026	147	117	-019	130	127	166	143	000	103	143	25.6972	23.4167
39	F-420	TEL.RDG.	39	210	295	231	246	264	037	254	377		337	414	275	678	178	333	092	-088	066	170	081	156	128	-007	111	125	149	129	018	105	114	6.6957	9.[illegible]2
40	F-430	CLER.CHK.	40	182	239	205	215	232	040	226	286	337		353	322	355	679	345	220	143	386	263	118	149	121	051	113	102	127	136	069	095	135	21.0254	21.0131
41	F-440	OBJ.INSP.	41	283	332	205	232	243	066	241	283	414	353		241	335	273	918	116	038	178	630	097	136	096	020	108	111	106	100	022	104	091	19.5000	7.9154
42	R-410	AR.COMP.	42	227	349	403	472	487	106	477	676	275	322	241		364	253	253	842	216	168	214	136	214	186	061	198	207	223	209	073	156	248	36.4238	10.6985
43	R-420	TEL.RDG.	43	149	200	181	214	220	072	221	209	678	355	335	364		425	410	333	673	368	411	286	182	150	051	130	160	165	152	076	134	162	10.3879	6.1130
44	R-430	CLER.CHK.	44	060	048	018	059	045	045	052	049	178	679	272	253	425		391	303	397	939	446	285	129	093	073	079	093	099	098	098	091	123	35.6325	14.1303
45	R-440	OBJ.INSP.	45	248	260	149	186	186	074	190	174	333	345	918	253	410	391		211	220	330	887	187	143	096	041	109	116	109	102	047	105	099	21.4337	6.4540
46	A-410	AR.COMP.	46	149	211	272	342	342	113	344	172	092	220	116	842	333	303	211		358	277	277	201	179	163	095	170	184	177	174	097	133	223	39.9984	10.6718
47	A-420	TEL.RDG.	47	-010	-027	013	042	032	061	043	-096	-088	143	038	216	673	397	220	358		432	386	306	089	074	077	064	090	073	076	084	076	105	14.0802	9.0273
48	A-430	CLER.CHK.	48	-009	-052	-073	-026	-053	038	-041	-072	066	386	178	168	368	939	330	277	432		438	303	092	061	068	045	070	065	060	091	070	092	40.5016	14.9912
49	A-440	OBJ.INSP.	49	155	122	052	093	082	069	092	012	170	263	630	214	411	446	887	277	386	438		252	121	077	057	087	098	090	083	066	084	088	23.2875	6.8153
50	A-500	PREF.	50	-075	-055	-025	-007	-017	049	-005	-026	081	118	097	136	286	285	187	201	306	503	252		223	163	196	165	176	150	165	121	156	186	56.6856	21.8031
51	R-601	SOCIAB.	51	016	162	092	104	109	040	111	147	156	149	136	214	182	129	143	179	089	092	121	223		537	270	532	450	439	469	377	428	414	6.6700	2.9031
52	R-602	SOC.SENSI.	52	089	164	200	175	206	072	208	117	128	121	096	186	150	093	096	163	074	061	077	163	537		256	476	592	340	632	433	342	591	4.5300	2.3075
53	R-603	IMPULS.	53	011	028	060	063	068	052	075	-019	-007	051	020	051	051	073	041	095	077	068	057	196	270	256		287	168	133	244	290	157	236	1.7943	1.5888
54	R-604	VIGOR	54	096	157	157	151	170	043	168	130	111	113	108	198	130	079	109	170	064	046	087	165	532	476	287		457	439	488	402	344	512	3.4379	2.1256
55	R-605	CALMNESS	55	113	169	200	196	218	066	218	127	125	102	111	207	160	093	116	184	090	070	098	176	450	592	168	457		572	580	402	430	620	3.7629	2.4396
56	R-606	TIDINESS	56	058	143	168	173	189	051	187	166	149	127	106	223	165	099	109	177	073	065	090	150	439	540	133	439	572		608	355	313	652	5.6172	2.7173
57	R-607	CULTURE	57	103	156	208	203	227	064	225	143	129	136	100	209	152	098	102	174	076	060	083	165	469	632	244	483	580	608		428	354	637	5.1571	2.2314
58	R-608	LEADER.	58	006	061	077	075	084	046	088	000	018	069	022	073	076	098	047	097	084	091	066	121	377	433	290	402	402	355	428		320	492	1.2267	1.3120
59	R-609	SELF-CONF.	59	062	115	135	153	155	064	159	103	105	095	104	156	134	091	105	133	076	070	084	156	428	342	157	344	430	313	354	320		392	4.7922	2.3697
60	R-610	MATUR.	60	107	162	240	255	274	083	273	148	114	135	091	248	162	123	099	223	105	092	088	186	414	591	236	512	620	652	637	492	392		10.2878	4.9956

*Decimal points omitted.

TABLE 2-7c

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-9 Students, Subsample 0 (N=7779)

Var.		Code	Description		R-101 SCREEN.	R-102 VOCAB.	R-103 LIT.	R-104 MUSIC	R-105 SOC.STUD.	R-106 MATH	R-107 PHYS.SCI.	R-108 BIOL.SCI.	R-109 SCI.ATT.	R-110 AERO.-SP.	R-111 ELEC.	R-112 MECH.	R-113 FARM.	R-114 HOME EC.	R-115 SPORTS	R-190 INF.TOT.	R-211 MEM./SENT.	R-212 MEM./WDS.	R-220 DISG.WDS.	R-231 SPELLING	R-232 CAP.	R-233 FUNCT.	R-234 ENG.USAGE	R-235 EF.EXP.	R-230 ENG.TOT.	R-240 WD.FUNCT.	R-250 RD.COMP.	R-260 CREAT.	R-270 MECH.REAS.	R-281 VIS.2DIM.	MEAN	S.D.
1	INFO. PART.	R-101	SCREEN.	1		414	380	362	459	293	345	308	396	219	260	297	409	427	317	519	220	251	359	384	461	398	383	316	500	26	441	293	199	180	11.1275	1.5878
2		R-102	VOCAB.	2	414		700	627	748	637	690	643	579	562	544	582	601	386	568	879	266	417	564	452	453	571	519	442	622	515	738	588	546	346	10.2826	4.0954
3		R-103	LIT.	3	380	700		641	709	589	592	575	509	489	424	427	475	366	497	798	223	382	495	427	421	526	466	398	572	465	689	518	414	272	9.9199	4.0325
4		R-104	MUSIC	4	362	627	641		614	541	508	479	457	387	344	322	410	435	424	710	198	381	518	432	388	513	444	400	553	475	630	482	325	240	5.0940	2.8752
5		R-105	SOC.STUD.	5	459	748	709	614		633	672	598	543	523	503	513	564	360	602	866	236	413	509	448	453	565	485	414	606	502	729	529	472	320	11.9878	5.3774
6		R-106	MATH.	6	293	637	589	541	633		615	513	458	459	484	438	438	324	478	756	212	383	459	416	353	544	411	350	533	541	606	504	465	312	6.6470	3.7405
7		R-107	PHYS.SCI.	7	345	690	592	508	672	615		625	479	560	611	549	550	294	503	814	231	355	429	353	377	481	412	340	505	446	614	495	540	320	7.6605	3.7415
8		R-108	BIOL.SCI.	8	308	643	575	479	598	513	623		461	495	493	509	543	309	464	743	207	319	384	306	331	427	397	328	458	403	583	474	490	282	4.9672	2.3946
9		R-109	SCI.ATT.	9	396	579	509	457	543	458	479	461		367	349	385	456	385	393	655	228	325	438	352	408	496	433	413	534	413	601	449	380	268	5.1566	2.0115
10		R-110	AERO.-SP.	10	219	562	489	387	523	459	560	495	367		565	556	405	098	491	662	130	201	298	160	213	278	270	224	294	262	468	445	528	277	3.2919	2.1447
11		R-111	ELEC.	11	260	544	424	344	503	484	611	493	349	565		623	445	124	429	679	127	194	264	173	230	270	253	205	292	258	415	422	551	280	6.4362	3.5669
12		R-112	MECH.	12	297	582	427	322	513	438	549	509	385	556	623		550	110	512	691	139	181	291	156	242	267	274	209	297	218	412	437	603	330	8.6554	3.6609
13		R-113	FARM.	13	409	601	475	410	564	438	550	543	456	405	445	550		366	443	705	232	304	380	334	378	439	407	330	485	360	555	442	452	278	6.8015	2.6180
14		R-114	HOME EC.	14	427	386	366	435	360	324	294	309	385	098	124	110	366		118	476	246	295	372	406	412	479	415	369	532	357	469	333	089	139	9.2160	3.6736
15		R-115	SPORTS	15	317	568	497	424	602	478	503	464	393	491	429	512	443	118		676	112	259	352	263	313	354	325	277	393	324	491	415	453	294	5.6994	2.9588
16		R-190	INF.TOT.	16	519	879	798	710	866	756	814	743	655	662	679	691	705	476	676		280	441	575	477	504	622	551	468	672	551	794	641	611	388	112.8891	35.2794
17	ENGLISH	R-211	MEM./SEN.	17	220	266	223	198	236	212	231	207	228	130	127	139	232	246	112	280		352	232	244	282	315	298	251	356	240	326	252	161	161	8.7944	3.0920
18		R-212	MEM./WDS.	18	251	417	382	381	413	383	355	319	325	201	194	181	304	295	259	441	352		388	406	331	440	347	314	468	422	464	329	217	210	10.2376	4.9211
19		R-220	DISG.WDS.	19	359	564	495	518	509	459	429	384	438	298	264	291	380	372	352	575	232	388		518	424	548	493	400	606	474	605	479	342	313	12.5602	6.4166
20		R-231	SPELLING	20	384	452	427	432	448	416	353	306	352	160	173	156	334	406	263	477	244	406	518		489	597	495	410	743	469	540	339	131	144	8.2813	2.9817
21		R-232	CAP.	21	461	453	421	388	453	353	377	331	408	213	230	242	378	412	313	504	282	331	424	488		595	531	439	811	367	510	355	253	243	28.2990	4.5664
22		R-233	FUNCT.	22	398	571	526	513	565	544	481	427	486	278	270	267	439	479	354	622	315	440	548	597	595		610	517	870	599	661	466	332	278	15.9582	4.7312
23		R-234	ENG.USAGE	23	383	519	466	444	485	411	412	397	433	270	253	274	407	415	325	551	298	347	493	495	531	610		504	796	438	576	399	295	250	15.4443	3.5559
24		R-235	EF.EXP.	24	316	442	398	400	414	350	340	328	413	224	205	209	330	369	277	468	251	314	400	410	439	517	504		683	394	533	375	236	205	7.6453	2.4773
25		R-230	ENG.TOT.	25	500	622	572	553	606	533	505	458	534	294	292	297	485	532	393	672	356	468	606	743	811	870	796	683		580	717	494	326	292	75.6281	14.5603
26		R-240	WD.FUNCT.	26	260	515	465	475	502	541	446	403	413	262	258	218	360	357	324	551	240	422	474	469	367	599	438	394	580		610	458	324	256	8.4834	4.8480
27		R-250	RD.COMP.	27	441	738	689	630	729	606	614	583	601	468	415	412	555	469	491	794	326	464	605	540	510	661	576	533	717	610		627	447	320	24.8124	10.7781
28		R-260	CREAT.	28	293	588	518	482	529	504	495	474	449	445	422	437	442	333	415	641	252	329	479	339	355	466	399	375	494	458	627		485	336	7.2220	3.6127
29		R-270	MECH.REAS.	29	199	546	414	325	472	465	540	490	380	528	551	603	452	089	453	611	161	217	342	131	253	332	295	236	326	324	447	485		475	9.3688	4.0449
30		R-281	VIS.2 DIM.	30	180	346	272	240	320	312	320	282	268	277	280	330	278	139	294	388	161	210	313	144	243	278	250	205	292	256	320	336	475		11.6871	5.6156
31		R-282	VIS.3 DIM.	31	130	408	350	312	376	403	396	360	301	328	346	353	322	214	276	463	144	229	291	174	261	353	273	246	340	351	411	412	539	451	7.5983	3.0661
32		R-290	ABST.REAS.	32	271	521	464	433	498	493	472	405	441	337	321	334	383	312	379	572	224	334	438	340	431	519	410	392	540	467	566	478	506	431	7.9110	3.1670
33	MATH	R-311	I.AR.REAS.	33	316	626	531	490	610	605	557	494	501	404	417	415	482	359	450	687	261	390	463	424	429	594	473	440	605	555	659	512	481	339	7.1446	3.3491
34		R-312	II.INTROD.	34	330	593	538	507	597	664	546	460	461	389	377	348	438	361	439	668	258	417	481	473	456	632	488	425	637	586	634	504	438	337	9.2800	4.0540
35		R-320	MATH.I+II.	35	356	668	587	549	662	700	605	522	526	435	434	416	503	395	487	743	285	444	519	495	487	675	529	475	684	628	709	558	503	371	16.4246	6.7397
36		R-333	III.ADV.	36	071	173	177	149	167	239	168	134	125	165	165	134	087	031	174	205	049	122	133	101	088	138	083	073	126	159	151	169	163	122	2.2869	1.5921
37		R-340	MATH.TOT.	37	345	657	584	541	650	701	598	513	515	439	439	415	485	374	490	734	275	439	510	481	471	656	509	456	661	617	690	555	501	371	18.7081	7.2707
38	FORMULA	F-410	AR.COMP.	38	309	332	272	271	342	284	257	227	290	153	155	174	278	295	242	362	208	268	292	364	371	405	359	332	467	312	386	266	182	211	22.3558	26.7538
39		F-420	TBL.RDG.	39	251	255	226	232	256	202	207	150	233	121	118	119	192	241	185	278	184	189	289	259	311	327	290	265	373	239	331	236	176	226	5.1609	10.9767
40		F-430	CLER.CHK.	40	233	202	202	213	218	171	155	113	182	061	061	054	148	223	127	221	163	209	341	328	274	295	262	222	351	236	289	184	099	183	17.2810	22.3463
41		F-440	OBJ.INSP.	41	193	205	198	205	200	173	172	157	194	100	092	103	156	192	148	231	165	186	279	188	241	254	225	187	283	212	256	221	219	298	18.7425	8.5259
42	ATT. RTS.	R-410	AR.COMP.	42	390	353	293	307	392	345	283	238	292	139	176	176	317	338	282	403	259	353	387	444	418	465	352	313	512	386	402	290	185	254	35.0423	10.5551
43		R-420	TBL.RDG.	43	189	164	121	149	173	148	133	068	127	062	070	068	108	122	134	171	144	182	295	181	165	202	145	114	209	191	195	149	123	202	10.0946	6.4739
44		R-430	CLER.CHK.	44	126	008	008	040	037	034	011	-036	-003	-057	-032	-056	-021	074	001	012	086	110	249	151	069	073	044	001	087	081	039	018	-017	100	34.0195	14.0950
45		R-440	OBJ.INSP.	45	155	141	140	164	142	126	115	106	127	058	053	053	096	147	103	160	140	163	262	132	159	90	147	105	189	175	177	168	172	277	20.8290	6.9001
46		A-410	AR.COMP.	46	242	179	150	169	220	205	150	118	136	053	097	082	176	189	161	217	159	229	252	246	228	261	156	127	270	235	196	152	087	151	39.2711	11.2689
47		A-420	TBL.RDG.	47	-028	-058	-079	-053	-049	-026	-047	-066	-078	-045	-033	-037	-061	-091	-026	-072	-013	024	056	-043	-110	-084	-113	-124	-119	-013	-095	-057	-029	011	15.0283	11.6134
48		A-430	CLER.CHK.	48	041	-088	-087	-054	-060	-041	-060	-098	-091	-098	-068	-094	-097	-017	-060	-091	026	032	137	025	-048	-054	-072	-105	-063	-016	-091	-066	-068	033	39.5990	15.5397
49		A-440	OBJ.INSP.	49	068	026	033	071	035	036	017	018	013	-007	-008	-020	-001	055	022	033	074	092	174	031	019	044	015	-020	027	085	036	059	071	179	22.9155	7.1618
50	A-500		PREF.	50	159	003	001	004	032	-016	001	-029	-022	-018	004	022	017	008	054	016	046	018	082	017	006	-039	-037	-096	-033	-024	-033	-012	-046	022	57.4444	24.7034
51	S.A.I.	R-601	SOCIAB.	51	297	123	126	194	134	093	042	045	143	-014	006	019	086	229	117	146	097	141	238	208	207	183	166	142	232	139	175	122	-009	069	6.1052	2.9223
52		R-602	SOC.SENSI.	52	230	179	196	244	178	155	100	101	162	026	028	010	085	248	073	187	129	175	253	225	199	230	186	157	255	192	244	158	009	053	4.0474	2.2877
53		R-603	IMPULS.	53	093	045	057	070	047	043	019	023	018	030	024	034	038	050	047	058	016	033	073	034	-003	010	001	-015	007	014	040	035	-001	031	1.7845	1.5608
54		R-604	VIGOR	54	228	207	188	203	221	166	153	139	172	117	109	140	163	150	232	239	089	135	234	175	173	192	163	148	217	156	230	176	120	120	3.2957	2.0947
55		R-605	CALMNESS	55	233	221	198	229	226	213	173	161	179	112	125	111	167	205	158	252	121	152	217	187	189	227	177	149	240	193	247	197	112	114	3.5912	2.3601
56		R-606	TIDINESS	56	249	161	156	205	178	159	100	097	148	027	049	038	106	233	084	184	131	169	227	228	211	243	183	167	265	177	218	146	023	075	5.1264	2.7396
57		R-607	CULTURE	57	233	169	180	242	178	147	094	107	147	002	019	005	113	250	073	182	116	160	212	224	185	229	169	144	240	200	222	142	-019	035	4.6673	2.3120
58		R-608	LEADER.	58	040	077	098	133	103	127	052	064	051	021	019	-004	005	062	104	091	026	076	133	101	022	077	037	033	067	110	096	082	-001	014	1.2067	1.3007
59		R-609	SELF-CONF.	59	214	205	195	198	203	176	151	138	170	121	118	111	145	167	162	229	108	141	204	173	170	180	161	139	210	167	228	176	098	085	4.6744	2.3030
60		R-610	MATUR.	60	225	233	211	231	249	256	195	156	163	120	149	122	152	183	158	264	139	189	240	238	173	248	173	151	251	246	268	197	094	101	10.0040	5.0122

*Decimal points omitted.

TABLE 2-7c (continued)*

Var.	Code	Description		R-282 VIS.3 DIM.	R-290 ABST.REAS.	R-311 I.AR.REAS.	R-312 II.INTROD.	R-320 MATH.I+II.	R-333 III.ADV.	R-340 MATH.TOT.	F-410 AR.COMP.	F-420 TEL.RDG.	F-430 CLER.CHK.	F-440 OBJ.INSP.	R-410 AR.COMP.	R-420 TEL.RDG.	R-430 CLER.CHK.	R-440 OBJ.INSP.	A-410 AR.COMP.	A-420 TEL.RDG.	A-430 CLER.CHK.	A-440 OBJ.INSP.	A-500 PREF.	R-601 SOCIAB.	R-602 SOC.SENSI.	R-603 IMPULS.	R-604 VIGOR	R-605 CALMNESS	R-606 TIDINESS	R-607 CULTURE	R-608 LEADER.	R-609 SELF-CONF.	R-610 MATUR.
				31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	R-101	SCREEN.	1	130	271	316	330	356	171	345	309	251	233	193	390	189	126	155	242	-026	041	068	159	297	230	093	228	233	249	233	040	214	225
2	R-102	VOCAB.	2	408	521	626	593	668	172	657	332	255	202	205	353	164	008	141	179	-058	-088	026	003	123	179	045	207	221	161	169	077	205	233
3	R-103	LIT.	3	350	464	531	538	587	177	584	272	226	202	198	293	121	008	140	150	-079	-087	033	001	126	196	057	188	198	156	180	098	195	211
4	R-104	MUSIC	4	312	433	490	507	549	149	541	271	232	213	205	307	149	040	164	169	-053	-054	071	004	194	244	070	203	229	205	242	133	198	231
5	R-105	SOC.STUD.	5	376	498	610	597	662	167	650	342	256	218	200	392	173	037	142	220	-049	-060	035	032	134	178	047	221	226	178	178	103	203	249
6	R-106	MATH.	6	403	493	605	664	700	239	701	284	202	171	173	345	148	034	126	205	-026	-041	036	-016	093	155	043	166	213	159	147	127	176	256
7	R-107	PHYS.SCI.	7	396	472	557	546	605	168	598	257	207	155	172	283	133	011	115	150	-047	-060	017	001	042	100	019	153	173	100	094	052	151	195
8	R-108	BIOL.SCI.	8	360	405	494	460	522	134	513	227	150	113	157	238	068	-036	106	118	-066	-098	018	-029	045	101	023	139	161	097	107	064	138	156
9	R-109	SCI.ATT.	9	301	441	501	461	526	125	515	290	233	182	194	292	127	-003	127	136	-078	-091	013	-022	143	162	018	172	179	148	147	051	170	163
10	R-110	AERO.-SP.	10	328	337	404	389	435	165	439	153	121	061	100	139	062	-057	058	053	-045	-098	-007	-018	-014	026	030	117	112	027	002	021	121	120
11	R-111	ELEC.	11	346	321	417	377	434	165	439	155	118	061	092	176	070	-032	053	097	-033	-068	-008	004	006	028	024	109	125	049	019	019	118	149
12	R-112	MECH.	12	353	334	415	348	416	134	415	174	119	054	103	176	068	-056	053	082	-037	-094	-020	022	019	010	034	140	111	038	005	-004	111	122
13	R-113	FARM.	13	322	383	482	438	503	087	485	278	192	148	156	317	108	-021	096	176	-061	-097	-001	017	086	085	038	163	167	106	113	005	145	152
14	R-114	HOME EC.	14	214	312	359	361	395	031	374	295	241	223	192	338	122	074	147	189	-091	-017	055	008	229	248	050	150	205	233	250	042	167	183
15	R-115	SPORTS	15	276	379	450	439	487	174	490	242	185	127	148	282	134	001	103	161	-026	-060	022	054	117	073	047	232	158	084	073	104	162	158
16	R-190	INF.TOT.	16	463	572	687	668	743	205	734	362	278	221	231	403	171	012	160	217	-072	-091	033	016	146	187	058	239	252	184	182	091	229	264
17	R-211	MEM./SEN.	17	144	224	261	258	285	049	275	208	144	163	165	259	144	086	140	159	-013	026	074	046	097	129	016	089	121	131	116	026	108	139
18	R-212	MEM./WDS.	18	229	334	390	417	444	122	439	268	189	209	186	353	182	110	163	229	024	032	092	018	141	175	033	135	152	169	160	076	141	189
19	R-220	DISG.WDS.	19	291	438	463	481	519	133	510	292	289	241	279	387	295	249	262	252	056	137	174	082	238	253	073	234	217	227	212	133	204	240
20	R-231	SPELLING	20	174	340	424	473	495	101	481	364	259	328	188	444	181	151	132	266	-043	025	031	017	208	225	034	175	187	228	224	101	173	238
21	R-232	CAP.	21	261	431	429	456	487	088	471	371	311	274	241	418	165	069	159	228	-110	-048	019	006	207	199	-003	173	189	211	185	022	170	173
22	R-233	FUNCT.	22	353	519	594	632	675	138	656	405	327	295	254	465	202	073	180	261	-084	-054	044	-039	183	230	010	192	227	243	229	077	180	248
23	R-234	ENG.USAGE	23	273	410	473	488	529	083	509	359	290	262	225	352	145	044	147	156	-113	-072	015	-037	166	186	001	163	177	183	169	037	161	173
24	R-235	EF.EXP.	24	246	392	440	425	475	073	456	332	265	222	187	313	114	001	105	127	-124	-105	-020	-096	142	157	-015	148	149	167	144	033	139	151
25	R-230	ENG.TOT.	25	340	540	605	637	684	126	661	467	373	351	283	512	209	087	189	270	-119	-063	027	-033	232	255	007	217	240	265	244	067	210	251
26	R-240	WD.FUNCT.	26	351	467	555	586	628	159	617	312	239	236	212	386	191	081	175	235	-013	-016	085	-024	139	192	014	156	193	177	200	110	167	246
27	R-250	RD.COMP.	27	411	566	659	634	709	151	690	386	331	289	256	402	195	039	177	196	-095	-091	036	-033	175	244	040	230	247	218	222	096	228	268
28	R-260	CREAT.	28	412	478	512	504	558	169	555	266	236	184	221	290	149	018	168	152	-057	-066	059	-012	122	158	035	176	197	146	142	082	176	197
29	R-270	MECH.REAS.	29	539	506	481	438	503	163	501	182	176	099	219	185	123	-017	172	087	-029	-068	071	-046	-009	009	-001	120	112	023	-019	-001	098	094
30	R-281	VIS.2 DIM.	30	451	431	339	337	371	122	371	211	226	183	298	254	202	100	277	151	011	033	179	022	069	053	031	120	114	075	035	014	085	101
31	R-282	VIS.3 DIM.	31		512	429	418	464	126	458	187	209	152	245	191	119	010	204	090	-065	-060	101	-087	-011	037	-020	082	082	037	029	-008	065	092
32	R-290	ABST.REAS.	32	512		542	543	596	132	581	341	308	241	316	339	176	033	233	154	-095	-076	073	-080	090	129	-025	149	149	125	105	034	120	142
33	R-311	I.AR.REAS.	33	429	542		654	891	176	864	362	251	206	190	414	165	013	123	230	-054	-083	012	-057	106	158	014	177	200	159	149	071	155	229
34	R-312	II.INTROD.	34	418	543	654		927	232	909	383	267	228	213	462	187	043	153	274	-044	-058	041	-045	123	150	015	175	207	169	152	078	178	248
35	R-320	MATH.I+II.	35	464	596	891	927		227	976	411	285	240	222	484	194	032	153	279	-053	-076	030	-055	127	169	016	193	224	180	165	082	184	263
36	R-333	III.ADV.	36	126	132	176	232	227		430	029	020	026	032	118	063	035	044	125	051	030	046	034	027	047	037	059	067	045	035	057	057	087
37	R-340	MATH.TOT.	37	458	581	864	909	976	430		387	269	228	214	474	194	038	152	286	-038	-064	038	-043	124	166	023	192	222	177	161	089	183	263
38	F-410	AR.COMP.	38	187	341	362	383	411	029	387		427	320	271	600	116	-011	131	042	-274	-167	-069	-085	143	093	-049	117	110	152	113	-019	115	126
39	F-420	TEL.RDG.	39	209	308	251	267	285	020	269	427		376	437	276	539	120	309	007	-344	-035	075	-007	166	130	-032	111	121	158	128	007	117	116
40	F-430	CLER.CHK.	40	152	241	206	228	240	026	228	320	376		374	314	297	597	325	138	-024	243	180	041	168	142	022	125	119	143	147	053	109	144
41	F-440	OBJ.INSP.	41	245	316	190	213	222	032	214	271	437	374		252	328	261	900	101	-047	136	544	076	130	110	014	106	111	126	106	029	108	096
42	R-410	AR.COMP.	42	191	339	414	462	484	118	474	600	276	314	252		335	255	257	774	113	159	195	120	238	191	061	214	217	242	212	089	178	252
43	R-420	TEL.RDG.	43	119	176	165	187	194	063	194	116	539	297	328	335		430	428	327	608	377	434	259	184	152	066	137	156	170	148	093	131	161
44	R-430	CLER.CHK.	44	010	033	013	043	032	035	038	-011	120	597	261	255	430		393	328	366	923	447	284	161	138	105	109	121	135	138	124	106	153
45	R-440	OBJ.INSP.	45	204	233	123	153	153	044	152	131	309	325	900	257	428	393		217	105	320	855	183	147	115	052	111	118	134	114	069	106	108
46	A-410	AR.COMP.	46	090	154	230	274	279	125	286	-042	007	138	101	774	327	328	217		358	330	299	217	184	164	115	174	184	182	176	126	130	215
47	A-420	TEL.RDG.	47	-065	-095	-054	-044	-053	051	-038	-274	-344	-024	-047	113	605	366	185	358		454	413	295	048	046	104	048	059	041	044	097	036	070
48	A-430	CLER.CHK.	48	-060	-076	-083	-058	-076	030	-064	-167	-035	243	136	159	377	923	320	330	454		455	323	113	099	117	072	090	095	097	124	075	116
49	A-440	OBJ.INSP.	49	101	073	012	041	030	048	038	-069	075	180	544	195	434	447	855	299	413	455		262	119	091	083	088	095	108	093	098	076	094
50	A-500	PREF.	50	-087	-080	-057	-045	-055	034	-043	-085	-007	041	076	120	259	284	183	217	295	323	262		211	159	246	174	196	161	170	164	133	194
51	R-601	SOCIAB.	51	-011	090	106	123	127	027	124	143	166	168	138	238	184	160	147	184	048	113	119	211		542	276	526	469	478	505	358	406	441
52	R-602	SOC.SENSI.	52	037	129	158	150	169	047	166	093	130	142	110	191	152	138	115	164	046	099	091	159	542		276	478	589	562	625	422	319	598
53	R-603	IMPULS.	53	-020	-025	014	015	016	037	023	-049	-032	022	014	061	066	105	052	115	104	117	083	246	276	276		290	227	190	260	303	146	263
54	R-604	VIGOR	54	082	149	177	175	193	059	192	117	111	125	106	214	131		111	174	048	072	088	174	526	478	290		464	466	470	386	332	533
55	R-605	CALMNESS	55	082	149	200	207	224	067	222	110	121	119	111	217	156	181	118	184	059	090	095	196	469	589	217	464		562	550	403	434	624
56	R-606	TIDINESS	56	037	125	159	169	180	045	177	152	158	143	126	242	170	135	134	182	041	095	108	161	478	562	190	466	562		620	371	329	651
57	R-607	CULTURE	57	029	105	149	152	165	035	161	113	128	147	106	212	148	138	114	176	044	097	093	170	505	625	260	470	550	620		425	328	605
58	R-608	LEADER.	58	-008	034	071	078	082	057	089	-019	007	053	029	089	093	124	069	126	097	124	098	164	358	422	303	386	403	371	425		288	495
59	R-609	SELF-CONF.	59	065	120	155	178	184	057	183	115	117	109	108	178	131	106	106	130	036	075	076	133	406	319	146	332	434	329	328	288		403
60	R-610	MATUR.	60	092	142	229	248	263	087	263	126	116	144	096	252	161	153	108	215	070	116	094	194	441	598	263	533	624	651	605	495	403	

INFO. PART I — ENGLISH — MATH — FORMULA RTS. — ATT. — S.A.I.

*Decimal points omitted.

TABLE 2-7d

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-10 Boys, Subsample 0 (N=3846)

Var.	Code	Description		R-101 SCREEN.	R-102 VOCAB.	R-103 LIT.	R-104 MUSIC	R-105 SOC.STUD.	R-106 MATH	R-107 PHYS.SCI.	R-108 BIOL.SCI.	R-109 SCI.ATT.	R-110 AERO.-SP.	R-111 ELEC.	R-112 MECH.	R-113 FARM.	R-114 HOME EC.	R-115 SPORTS	R-190 INF.TOT.	R-211 MEM./SEN.	R-212 MEM./WDS.	R-220 DISG.WDS.	R-231 SPELLING	R-232 CAP.	R-233 PUNCT.	R-234 ENG.USAGE	R-235 EF.EXP.	R-230 ENG.TOT.	R-240 WD.FUNCT.	R-250 RD.COMP.	R-260 CREAT.	R-270 MECH.REAS.	R-281 VIS.2DIM.	MEAN	S.D.
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1		R-101 SCREEN.	1		451	400	331	481	329	354	363	365	295	302	437	407	359	395	531	163	225	327	322	436	378	388	328	476	259	413	316	249	164	11.2441	1.4593
2		R-102 VOCAB.	2	451		719	650	743	700	714	642	614	657	619	611	543	503	580	894	248	414	573	467	476	610	567	505	668	534	744	607	545	330	12.1264	4.1091
3		R-103 LIT.	3	400	719		658	727	642	616	555	508	581	472	442	421	431	562	813	206	418	540	447	425	551	504	453	605	503	699	514	407	252	11.7507	4.4215
4		R-104 MUSIC	4	331	650	658		610	597	542	468	441	508	445	404	341	408	501	726	161	359	518	399	333	473	437	397	515	465	590	489	354	220	5.3957	2.8893
5		R-105 SOC.STUD.	5	481	743	727	610		648	667	607	549	567	504	495	499	453	608	852	223	394	496	457	467	587	505	470	635	504	725	513	439	275	14.1318	5.5310
6		R-106 MATH.	6	329	700	642	597	648		666	549	502	564	539	454	402	428	530	804	227	421	526	473	411	625	507	459	631	630	663	533	511	332	8.7223	4.8578
7		R-107 PHYS.SCI.	7	354	714	616	542	667	666		633	514	635	685	535	481	430	448	826	224	369	468	378	393	536	461	414	558	497	640	554	550	322	8.7858	3.9451
8		R-108 BIOL.SCI.	8	363	642	555	468	607	549	633		478	536	513	514	539	416	403	737	233	307	408	330	372	478	441	403	516	415	587	482	484	277	6.3749	2.4036
9		R-109 SCI.ATT.	9	365	514	508	441	549	502	514	478		472	425	465	429	394	446	670	184	295	411	347	402	480	442	426	536	412	583	447	420	263	5.6953	1.9794
10		R-110 AERO.-SP.	10	295	657	581	508	567	564	635	536	472		594	533	421	380	428	740	157	267	415	282	334	442	406	358	467	403	589	520	535	302	4.4272	2.3835
11		R-111 ELEC.	11	302	619	472	445	504	539	685	513	425	594		625	420	424	315	730	170	256	346	247	308	402	358	318	419	356	495	526	574	309	8.7166	4.1927
12		R-112 MECH.	12	437	611	442	404	495	454	535	514	465	533	625		549	453	377	706	197	233	370	283	389	397	413	335	470	292	499	519	555	317	11.6360	3.4492
13		R-113 FARM.	13	407	543	421	341	499	402	481	539	429	421	420	549		405	363	631	234	248	353	312	384	400	408	350	474	306	483	421	447	238	7.7969	2.4426
14		R-114 HOME EC.	14	359	503	431	408	453	428	430	416	394	380	424	453	405		344	609	164	251	330	269	305	362	362	311	410	329	442	422	352	192	8.1937	2.9612
15		R-115 SPORTS	15	395	580	562	501	608	530	448	403	446	428	315	377	363	344		64	148	319	436	389	399	435	406	386	513	391	555	404	292	219	7.6282	3.0691
16		R-190 INF.TOT.	16	531	894	813	726	852	804	826	737	670	740	730	706	631	609	664		246	444	597	497	523	658	599	539	718	586	799	663	613	367	132.6258	37.7601
17		R-211 MEM./SEN.	17	163	248	206	161	223	227	224	233	184	157	170	197	234	164	148	266		330	188	190	245	274	263	249	312	191	297	231	217	156	8.6316	2.9911
18		R-212 MEM./WDS.	18	225	414	418	359	394	421	369	307	295	267	256	233	248	251	319	444	330		374	372	302	404	347	309	440	387	445	328	286	207	10.2436	4.9121
19		R-220 DISG.WDS.	19	327	573	540	518	496	526	468	408	411	415	346	370	353	330	436	597	188	374		511	371	539	479	404	583	499	612	506	425	321	13.2530	6.6779
20		R-231 SPELLING	20	322	467	447	399	457	473	378	330	347	282	247	283	312	269	389	497	190	372	511		452	580	491	394	724	401	503	369	226	160	8.2816	3.0534
21		R-232 CAP.	21	436	476	425	333	467	411	393	372	402	334	308	389	384	305	399	523	245	302	371	452		562	542	474	801	350	486	366	335	248	28.4035	4.5235
22		R-233 PUNCT.	22	378	610	551	473	587	625	536	478	480	442	402	397	400	362	435	658	274	404	539	580	562		615	558	864	606	651	491	456	301	15.8978	4.6483
23		R-234 ENG.USAGE	23	388	567	504	437	505	507	461	441	442	406	358	413	408	362	406	599	263	347	479	491	542	615		541	807	455	575	443	388	243	15.6386	3.5552
24		R-235 EF.EXP.	24	328	505	453	397	470	459	414	403	426	358	318	355	350	311	386	539	249	309	404	394	474	558	541		718	430	584	419	358	237	7.8443	2.6049
25		R-230 ENG.TOT.	25	476	668	605	515	635	631	558	516	534	467	419	470	474	410	512	718	312	440	583	724	801	864	807	718		586	708	529	455	308	76.0658	14.5872
26		R-240 WD.FUNCT.	26	259	534	503	465	504	630	497	415	412	403	356	292	306	329	391	586	191	337	499	461	350	606	455	430	586		616	488	423	284	8.8805	5.0306
27		R-250 RD.COMP.	27	413	744	699	590	725	663	640	587	583	589	495	499	483	442	555	799	297	455	612	503	486	651	575	584	708	616		642	536	362	27.3963	11.1002
28		R-260 CREAT.	28	316	607	514	489	513	533	554	482	447	520	526	519	421	422	404	663	231	328	506	364	366	491	442	419	529	488	642		565	372	8.4555	4.0059
29		R-270 MECH.REAS.	29	249	545	407	354	439	511	550	484	420	335	574	555	447	352	292	613	217	286	425	226	335	456	388	358	455	423	536	565		510	11.9215	4.1960
30		R-281 VIS.2 DIM.	30	164	330	252	220	275	332	322	277	263	302	309	317	238	192	219	367	156	207	321	160	248	304	243	237	308	284	362	372	510		13.5491	5.7358
31		R-282 VIS.3 DIM.	31	125	401	335	301	355	443	442	368	302	405	428	371	299	291	218	472	166	220	302	177	255	376	298	305	363	378	454	476	610	475	8.6201	3.3642
32		R-290 ABST.REAS.	32	234	497	431	372	459	501	487	408	395	409	400	357	310	290	347	545	210	303	414	321	369	494	389	402	506	454	565	492	578	431	8.4873	3.1040
33		R-311 I.AR.REAS.	33	263	594	513	447	569	629	568	478	488	467	464	434	405	374	441	661	250	371	434	407	426	589	480	467	606	554	629	506	507	313	8.0655	3.4606
34		R-312 II.INTROD.	34	274	615	555	485	581	753	593	477	455	495	458	380	365	359	462	684	251	410	465	465	425	626	496	477	635	625	621	501	495	338	10.2491	4.6286
35		R-320 MATH. I+II.	35	294	661	586	511	628	764	635	521	511	527	503	440	417	399	494	735	273	429	493	480	464	665	533	516	678	649	681	549	545	357	18.3144	7.4175
36		R-333 III.ADV.	36	168	394	374	348	357	538	378	297	303	316	319	225	188	236	301	447	150	250	333	287	244	404	421	266	390	459	382	337	325	229	3.0081	1.9505
37		R-340 MATH.TOT.	37	292	660	593	521	623	782	635	537	511	527	507	431	403	395	495	736	270	436	501	480	456	667	594	504	675	665	675	553	545	361	21.3224	8.5875
38		F-410 AR.COMP.	38	283	353	315	268	385	359	300	268	310	235	210	259	265	251	374	403	203	233	277	362	387	412	348	349	474	330	413	300	255	226	22.9415	24.7437
39		F-420 TBL.RDG.	39	187	218	188	176	237	196	189	175	181	150	150	174	162	133	204	246	141	138	231	190	243	249	219	212	286	176	281	237	214	251	6.6992	11.6714
40		F-430 CLER.CHK.	40	170	181	197	185	191	201	149	147	144	145	097	125	128	121	185	214	079	181	314	260	175	224	198	172	259	211	250	197	178	212	19.6872	22.2399
41		F-440 OBJ.INSP.	41	139	154	151	133	139	144	145	168	128	145	117	150	112	103	109	182	122	094	240	104	139	174	160	130	185	151	200	216	280	306	19.8539	8.6055
42		R-410 AR.COMP.	42	347	364	338	285	396	426	290	264	298	224	184	247	298	237	415	419	223	318	381	433	413	463	354	330	512	396	395	306	241	272	35.4899	9.9110
43		R-420 TBL.RDG.	43	122	098	086	097	119	113	091	096	075	064	062	097	080	060	114	124	064	098	226	108	096	126	100	072	130	105	132	142	135	197	11.4974	7.8325
44		R-430 CLER.CHK.	44	095	-012	018	039	017	052	-008	027	-006	-009	-040	-026	005	-005	039	013	-009	076	235	105	022	040	034	-018	047	083	032	028	030	131	35.3775	14.8268
45		R-440 OBJ.INSP.	45	108	090	093	094	073	091	088	122	062	103	073	099	063	059	056	112	084	062	224	048	070	095	083	054	092	109	118	171	236	285	21.7387	7.3438
46		A-410 AR.COMP.	46	212	179	176	146	193	252	128	120	131	097	066	105	166	100	226	208	120	215	259	258	214	237	171	140	269	237	172	148	102	163	39.6726	10.5982
47		A-420 TBL.RDG.	47	-022	-084	-071	-046	-076	-036	-066	-046	-080	-063	-066	-044	-054	-052	-050	-078	-054	-005	072	-044	-112	-078	-085	-114	-110	-035	-102	-046	-032	014	16.2956	11.8755
48		A-430 CLER.CHK.	48	039	-099	-069	-038	-069	-029	-079	-035	-075	-079	-095	-091	-053	-063	-037	-084	-048	010	146	009	054	-055	-050	-103	-063	005	-077	-045	-045	064	40.6076	13.8690
49		A-440 OBJ.INSP.	49	053	-001	010	032	-018	013	005	045	-024	034	009	022	-006	-003	-016	010	024	016	161	-025	-024	-014	-020	-042	-030	040	003	086	140	206	23.6235	7.9281
50		A-500 PREF.	50	154	-042	-017	-007	-010	-050	-057	-041	-058	-067	-066	-019	-007	-002	023	-033	-003	015	049	-009	009	-054	-035	-099	-0	-058	-059	-052	-103	-024	59.1214	25.5809
51		R-601 SOCIAB.	51	240	090	086	102	097	037	011	024	089	013	-013	078	064	095	198	097	034	050	145	099	125	079	068	056	1	032	080	036	-002	040	5.9163	2.8718
52		R-602 SOC.SENSI.	52	176	173	169	193	164	133	123	094	132	120	086	076	072	109	128	175	038	095	189	124	104	145	117	097	15	105	156	113	041	023	3.7306	2.2198
53		R-603 IMPULS.	53	087	053	063	072	035	029	014	-008	025	033	028	030	017	026	057	049	-035	-003	073	023	-003	-022	-012	-063	-04	-010	002	016	-014	-011	1.8848	1.5707
54		R-604 VIGOR	54	206	197	167	178	192	174	125	162	149	118	083	133	159	131	258	215	074	095	206	160	137	153	143	118	180	117	176	153	100	093	3.5309	2.0796
55		R-605 CALMNESS	55	213	221	193	189	197	226	162	162	160	181	143	147	152	137	188	239	090	122	197	155	146	184	149	133	196	154	201	162	122	096	3.7241	2.3440
56		R-606 TIDINESS	56	198	162	153	183	153	154	093	072	096	100	059	087	071	136	165	168	054	093	190	182	149	181	139	120	197	117	150	108	028	049	4.8354	2.7291
57		R-607 CULTURE	57	168	103	132	184	120	112	064	069	063	049	039	040	082	106	089	126	049	081	136	098	088	118	085	060	117	097	094	076	-000	013	4.3406	2.2779
58		R-608 LEADER.	58	054	072	083	119	070	100	049	022	045	025	013	-012	-001	047	126	077	003	046	115	093	015	066	033	007	054	084	038	035	026	-013	1.1586	1.2708
59		R-609 SELF-CONF.	59	204	185	180	151	169	164	139	147	139	145	123	147	125	130	175	206	085	136	184	157	142	159	146	128	186	130	190	142	100	079	4.8385	2.3087
60		R-610 MATUR.	60	203	200	182	195	195	225	156	130	140	131	135	121	125	141	157	221	074	132	211	187	122	204	148	107	197	190	186	154	084	063	10.1563	5.0226

INFO. PART I — ENGLISH — MATH — SCIENCE FORMULA — SCIENCE RES. — SCIENCE ATT. — S.A.I.

*Decimal points omitted.

TABLE 2-7d (continued)*

Var.	Code	Description		R-282 VIS.3 DIM. 31	R-290 ABST.REAS. 32	R-311 I.AR.REAS. 33	R-312 II.INTROD. 34	R-320 MATH.I-II. 35	R-333 III.ADV. 36	R-340 MATH.TOT. 37	F-410 AR.COMP. 38	F-420 TEL.RDG. 39	F-430 CLER.CHK. 40	F-440 OBJ.INSP. 41	R-410 AR.COMP. 42	R-420 TEL.RDG. 43	R-430 CLER.CHK. 44	R-440 OBJ.INSP. 45	A-410 AR.COMP. 46	A-420 TEL.RDG. 47	A-430 CLER.CHK. 48	A-440 OBJ.INSP. 49	A-500 PREF. 50	R-601 SOCIAB. 51	R-602 SOC.SENSI. 52	R-603 IMPULS. 53	R-604 VIGOR 54	R-605 CALMNESS 55	R-606 TIDINESS 56	R-607 CULTURE 57	R-608 LEADER. 58	R-609 SELF-CONF. 59	R-610 MATUR. 60
1	R-101	SCREEN.	1	125	234	263	274	294	168	292	283	187	120	139	347	122	095	108	212	-022	039	053	154	240	176	087	206	213	198	168	054	204	203
2	R-102	VOCAB.	2	491	497	594	615	661	394	660	353	218	181	154	364	098	-012	090	179	-084	-099	-001	-042	090	173	053	197	221	162	103	072	185	200
3	R-103	LIT.	3	335	431	513	555	586	374	591	315	188	197	151	338	086	018	093	176	-071	-069	010	-017	086	169	063	167	193	153	132	083	180	182
4	R-104	MUSIC	4	301	372	447	485	511	348	521	268	176	185	133	285	097	039	094	146	-046	-038	032	-007	102	193	072	178	189	183	184	119	151	195
5	R-105	SOC.STUD.	5	355	459	569	581	628	357	620	385	237	191	139	396	119	017	073	193	-076	-069	018	-010	007	164	035	192	197	153	120	070	169	195
6	R-106	MATH.	6	443	501	629	753	764	538	782	359	196	201	144	426	119	052	091	252	-036	-029	013	-050	037	133	029	174	226	154	112	100	164	225
7	R-107	PHYS.SCI.	7	442	487	568	593	635	378	635	300	189	149	145	290	091	-008	088	128	-066	-079	005	-057	011	123	014	125	162	093	064	049	139	156
8	R-108	BIOL.SCI.	8	368	408	478	477	521	297	517	268	175	147	168	264	096	027	122	120	-046	-035	045	-041	024	094	-008	162	162	072	069	022	147	130
9	R-109	SCI.ATT.	9	302	395	488	455	511	303	511	310	181	144	128	298	075	-006	062	131	-080	-075	-024	-058	089	132	025	149	160	096	063	045	139	140
10	R-110	AERO.-SP.	10	405	409	467	495	527	316	527	235	150	145	145	224	064	-009	103	097	-063	-079	034	-067	013	120	033	118	181	100	049	025	145	131
11	R-111	ELEC.	11	428	400	464	458	503	319	507	210	150	097	117	184	062	-040	073	066	-066	-095	009	-066	-013	086	028	083	143	059	039	013	123	135
12	R-112	MECH.	12	371	357	434	380	440	225	431	259	174	125	150	247	097	-026	099	105	-084	-091	022	-019	078	076	030	133	147	087	040	-012	147	121
13	R-113	FARM.	13	299	310	405	365	417	188	403	265	162	128	112	298	060	005	063	166	-054	-053	-006	-007	064	072	017	159	152	071	082	-001	125	125
14	R-114	HOME EC.	14	291	290	374	359	399	236	398	251	133	121	103	237	060	-005	059	100	-052	-063	-003	-002	095	109	026	131	137	136	106	047	130	141
15	R-115	SPORTS	15	218	347	441	462	494	301	495	374	204	185	109	415	114	039	056	226	-050	-037	-016	023	198	128	057	258	188	165	089	126	175	157
16	R-190	INF.TOT.	16	472	545	661	684	735	447	736	403	246	214	182	419	124	013	112	208	-078	-084	010	-033	097	175	049	215	239	168	126	077	206	221
17	R-211	MEM./SEN.	17	166	210	250	251	273	150	270	203	141	079	122	223	064	-009	084	120	-054	-048	024	-003	034	038	-035	074	090	054	049	003	085	074
18	R-212	MEM./WDS.	18	220	303	371	410	429	290	436	233	138	181	094	318	098	076	063	215	-005	010	016	015	050	095	-003	095	122	093	081	046	136	132
19	R-220	DISC.WDS.	19	302	414	434	465	493	333	501	277	231	214	240	381	226	235	224	259	072	146	161	049	145	189	073	206	197	190	136	115	184	211
20	R-231	SPELLING	20	177	321	407	465	480	287	480	362	190	260	104	133	108	105	048	258	-044	009	-025	-009	099	124	022	160	155	182	098	093	157	187
21	R-232	CAP.	21	255	369	426	425	464	244	456	387	243	175	139	413	096	022	070	214	-112	-054	-024	009	125	104	-003	137	146	149	088	015	142	122
22	R-233	FUNCT.	22	376	494	589	626	665	404	667	412	249	224	174	463	126	040	095	257	-078	-055	-014	-054	079	145	-022	153	184	181	118	066	159	204
23	R-234	ENG.USAGE	23	298	389	480	496	533	321	534	348	219	198	160	354	100	034	083	171	-083	-050	-020	-035	068	117	-012	143	149	139	085	033	146	148
24	R-235	EF.EXP.	24	305	402	467	477	516	266	506	349	212	172	130	330	072	-018	054	140	-114	-103	-042	-099	056	097	-063	118	133	120	060	007	128	107
25	R-230	ENG.TOT.	25	363	506	606	635	678	390	675	474	286	259	183	512	130	047	092	269	-110	-063	-030	-043	111	150	-017	180	196	197	117	054	186	197
26	R-240	WD.FUNCT.	26	378	454	554	625	649	459	665	330	176	211	151	396	105	083	109	237	-035	005	040	-058	032	105	-010	117	154	117	097	084	130	190
27	R-250	RD.COMP.	27	454	565	629	621	681	382	675	413	281	250	200	395	132	032	118	172	-102	-077	003	-059	080	156	002	176	201	150	094	058	190	186
28	R-260	CREAT.	28	476	492	506	501	549	337	551	300	237	197	216	306	142	030	171	148	-046	-045	086	-052	036	113	016	153	162	108	076	035	142	164
29	R-270	MECH.REAS.	29	610	578	507	495	545	325	545	255	214	178	280	241	130	030	236	102	-032	-045	140	-103	-002	041	-014	100	122	028	-000	-026	100	084
30	R-281	VIS.2 DIM.	30	475	431	313	338	357	229	361	226	251	212	306	272	197	131	285	163	014	064	206	-024	060	023	-011	093	096	049	013	-013	079	063
31	R-282	VIS.3 DIM.	31		554	447	436	480	280	479	221	203	169	244	207	096	024	205	086	-072	-050	121	-133	-045	007	-037	043	060	023	003	-016	069	061
32	R-290	ABST.REAS.	32	554		512	515	560	307	553	342	244	202	244	329	123	022	186	145	-078	-067	084	-118	-092	043	-036	079	097	052	012	-006	066	074
33	R-311	I.AR.REAS.	33	447	512		675	888	410	860	403	218	170	123	432	096	-011	047	225	-088	-093	-049	-107	014	080	-005	117	149	096	029	031	107	145
34	R-312	II.INTROD.	34	436	515	675		939	520	929	425	227	208	149	499	133	042	081	291	-098	-045	-011	-070	016	097	-003	118	174	129	070	061	146	182
35	R-320	MATH.I+II.	35	480	560	888	939		516	981	454	243	209	150	513	127	021	073	287	-07	-072	-030	-094	017	098	-004	128	178	125	057	053	141	181
36	R-333	III.ADV.	36	280	307	410	520	516		673	193	107	110	083	305	093	049	066	231	018	010	034	-010	007	056	030	100	144	057	063	091	108	134
37	R-340	MATH.TOT.	37	479	553	860	929	981	673		436	234	205	149	513	131	029	078	300	-057	-060	-018	-083	016	097	003	133	186	128	063	066	146	187
38	F-410	AR.COMP.	38	221	342	403	425	454	193	436		333	234	162	598	109	-025	050	-033	-184	-141	-088	-065	091	069	-045	124	098	116	044	014	113	100
39	F-420	TEL.RDG.	39	203	244	218	227	243	107	234	333		304	346	283	658	148	272	093	-115	042	134	045	087	069	-033	102	085	088	054	010	062	069
40	F-430	CLER.CHK.	40	169	202	170	208	209	110	205	234	304		328	265	315	661	311	148	116	357	231	068	086	088	027	113	124	136	094	075	111	118
41	F-440	OBJ.INSP.	41	244	244	123	149	150	083	149	162	346	328		229	316	292	923	160	076	212	656	089	057	046	-005	076	070	070	043	020	083	071
42	R-410	AR.COMP.	42	207	329	432	499	513	305	513	598	283	265	229		288	209	216	179	100	207	155	111	186	121	057	208	199	205	132	110	182	213
43	R-420	TEL.RDG.	43	096	123	096	133	127	093	131	109	658	315	316	288		425	400	270	673	083	419	257	096	065	066	105	104	092	071	049	081	088
44	R-430	CLER.CHK.	44	024	022	-011	042	021	049	029	-025	148	661	292	209	425		404	281	417	936	451	206	124	098	112	104	136	118	115	118	100	125
45	R-440	OBJ.INSP.	45	205	186	047	081	073	066	078	050	272	311	923	246	400	404		225	261	356	898	175	069	052	032	081	074	076	057	044	084	074
46	A-410	AR.COMP.	46	086	145	225	291	237	231	300	-033	093	148	160	779	270	281	225		267	281	260	189	162	099	105	163	167	165	130	126	137	189
47	A-420	TEL.RDG.	47	-072	-078	-088	-048	-071	018	-057	-184	-115	116	076	100	673	417	261	267		464	422	295	041	018	120	038	053	035	040	073	044	048
48	A-430	CLER.CHK.	48	-050	-067	-093	-045	-072	010	-060	-141	042	357	212	137	383	936	356	281	464		454	274	115	081	127	077	111	084	099	112	073	100
49	A-440	OBJ.INSP.	49	121	084	-049	-011	-030	034	-018	-088	134	231	656	155	419	451	898	260	422	434		239	069	049	067	072	064	068	062	063	069	061
50	A-500	PREF.	50	-133	-118	-107	-070	-094	-010	-083	-065	045	068	089	111	257	246	175	189	295	274	239		206	122	261	143	156	161	175	168	101	159
51	R-601	SOCIAB.	51	-045	-002	014	016	017	007	016	091	087	086	057	186	096	124	069	162	041	115	069	206		511	291	514	434	436	455	387	342	439
52	R-602	SOC.SENSI.	52	007	043	080	097	098	056	097	069	069	088	046	121	065	098	052	099	018	081	049	122	511		244	478	558	534	583	433	258	604
53	R-603	IMPULS.	53	-037	-036	-005	-003	-004	030	003	-045	-033	027	-005	057	066	112	032	105	120	127	067	261	291	244		235	199	170	233	293	107	240
54	R-604	VIGOR	54	043	079	117	118	128	100	133	124	102	113	076	208	109	104	081	163	038	077	072	143	514	478	235		469	484	454	402	289	556
55	R-605	CALMNESS	55	063	097	149	174	178	144	186	098	085	124	070	196	104	136	074	167	053	111	064	156	434	558	194	469		541	516	379	414	605
56	R-606	TIDINESS	56	023	052	096	129	125	087	128	116	088	136	070	205	092	118	076	165	035	084	068	161	436	534	170	484	541		582	362	317	638
57	R-607	CULTURE	57	003	012	029	070	057	063	063	044	054	094	043	132	071	115	057	130	040	099	062	175	455	583	233	454	516	582		389	284	585
58	R-608	LEADER.	58	-016	-006	031	041	053	091	066	014	-010	075	020	110	049	118	044	126	073	112	063	168	387	433	293	402	379	362	389		228	469
59	R-609	SELF-CONF.	59	069	066	107	146	141	108	146	113	062	111	083	182	081	109	084	137	044	073	069	101	342	258	107	289	414	317	284	228		394
60	R-610	MATUR.	60	061	074	145	182	181	134	187	100	069	118	071	213	088	125	074	189	048	100	061	159	439	604	240	556	605	638	585	469	394	

*Decimal points omitted.

TABLE 2-7e

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-10 Girls, Subsample 0 (N=3727)

Var.	Code	Description		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	MEAN	S.D.
1	R-101	SCREEN.	1		316	293	284	336	241	249	260	264	138	202	251	299	330	239	405	144	194	271	257	284	284	237	215	335	206	338	212	187	171	11.5750	.9882
2	R-102	VOCAB.	2	316		706	666	709	649	647	584	561	421	413	494	575	478	527	871	319	490	563	469	414	618	525	456	653	597	760	563	502	322	10.9850	4.0620
3	R-103	LIT.	3	293	706		658	709	600	583	528	475	378	350	402	487	389	487	814	269	446	520	429	374	546	460	395	580	530	703	505	412	294	11.5068	4.2103
4	R-104	MUSIC	4	284	666	658		648	566	530	477	442	344	310	361	435	410	494	758	231	419	531	418	350	531	443	395	561	512	631	468	397	253	5.9699	2.9092
5	R-105	SOC.STUD.	5	336	709	709	648		590	632	532	490	360	373	409	538	461	516	842	298	458	492	445	394	582	470	404	606	551	712	488	422	272	12.2917	4.9634
6	R-106	MATH.	6	241	649	600	566	590		570	497	441	306	326	383	409	355	449	753	283	443	478	451	336	589	455	369	583	645	595	466	451	316	7.4231	4.3377
7	R-107	PHYS.SCI.	7	249	647	583	530	632	570		564	436	396	473	428	502	420	455	782	275	436	420	367	340	526	426	343	532	526	612	477	473	301	6.9565	3.4422
8	R-108	BIOL.SCI.	8	260	584	528	477	532	497	564		414	329	348	429	522	415	389	702	264	385	374	321	298	442	378	306	461	452	562	446	420	226	5.6187	2.2681
9	R-109	SCI.ATT.	9	264	561	475	442	490	441	436	414		250	250	361	433	374	364	624	239	350	413	310	346	465	422	406	509	458	590	428	385	270	5.7373	2.9648
10	R-110	AERO.-SP.	10	138	421	378	344	360	306	396	329	250		315	306	290	231	316	494	143	237	235	171	171	260	235	194	272	255	366	304	331	178	2.5669	1.6304
11	R-111	ELEC.	11	202	413	350	310	373	326	473	348	250	315		390	333	297	286	536	176	249	262	194	184	280	227	174	282	266	334	312	320	191	5.3378	2.5001
12	R-112	MECH.	12	251	494	402	361	409	383	428	429	361	306	390		524	418	345	619	228	250	299	209	255	342	311	255	363	318	441	404	413	264	7.4060	2.8055
13	R-113	FARM.	13	299	575	487	435	538	409	502	522	433	290	333	524		486	434	696	265	353	370	325	338	458	403	330	489	400	565	445	420	266	7.0115	2.5809
14	R-114	HOME EC.	14	330	478	389	410	461	355	420	415	374	231	297	418	486		360	622	202	285	329	281	315	393	334	315	430	341	457	399	365	237	12.2181	3.3377
15	R-115	SPORTS	15	239	527	487	494	516	449	455	389	364	316	286	345	434	360		643	167	330	363	309	285	391	321	308	422	385	495	396	352	236	5.1980	2.4932
16	R-190	INF.TOT.	16	405	871	814	758	842	753	782	702	624	494	536	619	696	622	643		347	531	588	497	457	670	559	480	702	651	808	621	570	366	117.8047	31.6213
17	R-211	MEM./SEN.	17	144	319	269	231	298	283	275	244	239	143	176	228	265	202	167	347		392	237	242	282	323	269	259	361	287	362	285	254	191	9.3856	3.0205
18	R-212	MEM./WDS.	18	194	490	446	419	458	443	436	383	350	237	249	250	353	285	330	531	392		413	389	342	493	379	338	513	472	523	418	353	243	11.8245	5.4757
19	R-220	DISG.WDS.	19	271	563	520	531	492	478	420	374	413	235	262	299	370	329	363	588	237	413		509	386	547	477	405	607	497	604	468	394	303	14.6912	6.8311
20	R-231	SPELLING	20	257	469	429	418	445	451	367	321	310	171	194	209	325	281	309	497	242	389	509		447	561	460	356	724	466	509	331	237	185	9.7242	2.7322
21	R-232	CAP.	21	284	414	374	350	394	336	340	298	346	171	184	255	338	315	285	457	282	342	386	447		560	487	432	777	356	472	314	301	245	29.7470	3.4523
22	R-233	FUNCT.	22	284	618	546	531	582	589	526	442	465	260	280	342	458	393	391	670	323	493	547	561	560		592	470	870	632	658	454	445	339	17.8975	4.4424
23	R-234	ENG.USAGE	23	237	525	460	443	470	455	426	378	422	235	227	311	403	334	321	559	269	379	477	460	487	592		455	781	467	548	376	347	245	16.7599	3.1147
24	R-235	EF.EXP.	24	215	456	395	395	404	369	343	306	406	194	174	255	330	315	308	480	259	338	405	356	432	470	455		658	401	521	386	332	216	8.6397	2.1813
25	R-230	ENG.TOT.	25	335	653	580	561	606	583	532	461	509	272	282	363	489	430	422	702	361	513	607	724	777	870	781	658		616	709	486	441	330	82.7682	12.3904
26	R-240	WD.FUNCT.	26	206	597	530	512	551	645	536	452	458	255	266	318	400	341	385	651	287	472	497	466	356	632	467	401	616		657	495	453	324	10.3805	5.4922
27	R-250	RD.COMP.	27	338	760	703	631	712	595	612	562	590	366	334	441	565	457	495	808	362	523	604	509	472	658	548	521	709	657		612	511	333	28.8865	10.1664
28	R-260	CREAT.	28	212	563	505	468	488	466	477	446	428	304	312	404	445	399	396	621	285	418	468	331	314	454	376	386	486	495	612		483	309	7.8090	3.6358
29	R-270	MECH.REAS.	29	187	502	412	397	422	451	473	420	385	331	320	413	420	365	352	570	254	353	394	237	301	445	347	332	441	453	511	483		448	8.1191	3.5021
30	R-281	VIS.2 DIM.	30	171	322	254	253	272	316	301	226	270	178	191	264	266	237	236	366	191	243	303	185	245	339	245	216	330	324	333	309	448		11.5763	5.5789
31	R-282	VIS.3 DIM.	31	141	421	350	340	379	406	410	341	347	265	233	327	339	306	298	483	212	315	303	212	263	392	290	296	386	437	449	419	548	461	7.7183	3.0231
32	R-290	ABST.REAS.	32	213	513	453	442	473	483	466	376	446	251	232	317	381	347	365	571	248	384	433	338	383	518	401	410	540	527	578	466	542	410	8.2699	3.0878
33	R-311	I.AR.REAS.	33	247	612	536	498	588	589	541	451	508	282	297	388	453	412	407	679	311	449	467	426	398	590	463	442	610	604	661	503	467	329	7.5492	3.4435
34	R-312	II.INTROD.	34	236	584	531	502	557	721	542	460	439	276	297	340	419	345	415	671	293	464	452	449	383	615	468	379	610	628	590	453	452	349	9.8479	4.2406
35	R-320	MATH.I+II.	35	268	663	603	556	635	735	602	507	522	310	330	402	482	417	457	749	335	508	510	487	433	671	517	452	678	686	691	529	510	378	17.3971	6.9141
36	R-333	III.ADV.	36	099	326	296	275	281	442	284	228	244	199	197	180	183	169	232	366	157	236	228	210	185	292	227	207	296	351	305	284	268	205	2.6501	1.7548
37	R-340	MATH.TOT.	37	258	658	589	552	623	748	595	499	515	318	336	395	467	404	456	743	330	501	501	477	423	658	507	446	665	684	678	530	510	379	20.0472	7.8339
38	F-410	AR.COMP.	38	256	350	291	287	355	345	290	236	302	129	167	214	313	272	267	399	226	302	325	400	386	435	314	302	484	366	409	286	237	236	28.0131	19.9935
39	F-420	TBL.RDG.	39	195	157	147	151	170	153	116	108	139	084	091	116	124	125	121	189	119	119	224	174	187	181	132	137	213	167	218	161	162	219	8.9386	8.5102
40	F-430	CLER.CHK.	40	182	205	205	205	207	191	152	137	148	100	101	093	116	121	160	227	123	178	344	273	193	245	175	124	267	204	242	204	173	195	26.1014	20.0302
41	F-440	OBJ.INSP.	41	142	182	167	177	165	152	143	131	156	118	085	123	118	122	111	201	111	141	281	142	187	199	144	140	215	196	210	222	236	298	21.5085	7.5642
42	R-410	AR.COMP.	42	317	363	298	291	382	397	305	278	303	135	207	234	336	279	312	431	280	344	383	458	413	472	334	288	520	416	402	303	253	282	37.6378	10.4451
43	R-420	TBL.RDG.	43	161	124	107	114	144	140	073	084	095	076	072	066	077	084	095	145	099	108	242	164	148	128	080	075	157	147	162	129	127	211	12.1156	6.7264
44	R-430	CLER.CHK.	44	105	036	033	055	044	076	004	026	002	028	030	-026	-047	-010	032	036	048	056	252	153	061	062	030	-009	079	068	040	064	052	138	38.8975	14.3481
45	R-440	OBJ.INSP.	45	127	135	124	142	123	119	107	111	109	107	075	098	078	086	084	154	090	104	252	103	144	146	100	085	155	157	155	189	207	283	23.0893	6.8343
46	A-410	AR.COMP.	46	267	268	217	211	291	318	228	226	217	101	175	181	256	204	253	330	244	273	312	366	313	362	253	197	396	331	282	228	192	232	40.8460	10.1498
47	A-420	TBL.RDG.	47	061	039	023	030	059	069	000	025	012	036	023	-012	-002	005	032	040	039	053	162	087	047	022	-007	-019	035	066	039	043	038	117	15.2927	8.3774
48	A-430	CLER.CHK.	48	055	-046	-049	-021	-036	012	-063	-029	-065	-009	-007	-076	114	-068	-031	-056	006	-008	172	075	-008	-030	-040	-068	-019	-004	-058	-009	-010	092	43.1629	14.7074
49	A-440	OBJ.INSP.	49	096	068	063	088	063	071	055	076	046	082	055	060	024	038	044	085	057	052	193	049	081	072	041	014	072	097	077	131	154	235	24.6702	6.8604
50	A-500	PREF.	50	123	016	014	002	013	015	027	017	059	024	026	007	015	013	027	001	006	032	067	003	018	033	039	090	043	066	042	001	040	029	58.4384	21.8980
51	R-601	SOCIAB.	51	180	037	033	071	016	021	016	018	036	002	000	036	010	039	074	042	047	029	141	065	080	051	035	053	073	023	039	051	016	019	6.9571	2.9145
52	R-602	SOC.SENSI.	52	144	175	181	104	157	135	107	119	128	103	066	052	063	098	098	176	096	120	223	147	133	146	133	109	175	116	183	124	067	048	4.9893	2.3111
53	R-603	IMPULS.	53	076	141	163	127	116	101	100	110	082	097	067	080	077	075	115	149	018	041	119	061	031	062	046	020	059	063	127	075	074	050	1.9627	1.6820
54	R-604	VIGOR	54	136	112	109	131	109	111	095	114	094	052	044	098	109	089	151	145	079	080	148	089	073	094	086	057	105	085	119	109	098	067	3.5068	2.1549
55	R-605	CALMNESS	55	153	156	162	155	159	156	120	134	109	121	092	109	098	108	127	188	100	066	158	113	107	125	128	075	145	124	148	129	086	069	4.1135	2.4601
56	R-606	TIDINESS	56	154	080	075	092	076	097	035	056	036	024	045	012	028	061	059	088	058	043	138	116	103	092	085	072	121	056	076	068	001	034	5.9683	2.7368
57	R-607	CULTURE	57	166	168	187	205	182	170	132	145	101	092	077	076	102	099	130	199	087	108	170	165	122	166	144	092	182	122	166	124	060	056	5.5476	2.2112
58	R-608	LEADER.	58	044	067	077	113	062	125	053	067	020	020	023	001	004	003	080	079	034	029	115	098	023	055	054	018	064	094	058	053	008	004	1.2385	1.3330
59	R-609	SELF-CONF.	59	119	122	123	139	121	132	092	099	097	104	047	095	096	053	113	147	096	090	151	096	053	091	101	056	104	095	122	103	094	054	4.9056	2.4881
60	R-610	MATUR.	60	159	204	206	192	225	249	183	166	128	112	129	114	131	122	155	246	135	143	213	210	122	198	161	103	210	196	207	164	078	081	10.8854	4.9927

* Decimal points omitted.

TABLE 2-7e (continued)*

Var.		Code	Description		R-282 VIS.3 DIM.	R-290 ABST.REAS.	R-311 I.AR.REAS.	R-312 II.INTROD.	R-320 MATH.I+II.	R-333 III.ADV.	R-340 MATH.TOT.	F-410 AR.COMP.	F-420 TBL.RDG.	F-430 CLER.CHK.	F-440 OBJ.INSP.	R-410 AR.COMP.	R-420 TBL.RDG.	R-430 CLER.CHK.	R-440 OBJ.INSP.	A-410 AR.COMP.	A-420 TBL.RDG.	A-430 CLER.CHK.	A-440 OBJ.INSP.	A-500 PREF.	R-601 SOCIAB.	R-602 SOC.SENSI.	R-603 IMPULS.	R-604 VIGOR	R-605 CALMNESS	R-606 TIDINESS	R-607 CULTURE	R-608 LEADER.	R-609 SELF-CONF.	R-610 MATUR.
					31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	INFO. PART I	R-101	SCREEN.	1	141	213	247	236	268	099	258	256	195	182	142	327	161	105	127	267	061	055	096	123	180	144	076	136	153	154	166	044	119	159
2		R-102	VOCAB.	2	421	513	612	584	663	326	658	350	157	205	182	363	124	036	135	268	039	-046	068	-016	037	175	141	112	156	080	168	067	122	204
3		R-103	LIT.	3	350	453	536	531	593	296	589	291	147	205	167	298	107	033	124	217	023	-049	063	014	033	181	163	109	162	075	187	077	123	206
4		R-104	MUSIC	4	340	442	498	502	556	275	552	287	151	205	177	291	114	055	142	211	030	-021	088	002	071	184	127	131	155	092	205	113	139	192
5		R-105	SOC.STUD.	5	379	473	588	557	635	281	623	355	170	207	165	382	144	044	123	291	059	-036	063	013	016	157	116	109	159	076	182	062	121	225
6		R-106	MATH.	6	406	483	589	721	735	442	748	345	153	191	152	397	140	076	119	318	069	012	071	-015	021	135	101	111	156	097	170	125	132	249
7		R-107	PHYS.SCI.	7	410	466	541	542	602	284	595	290	116	152	143	305	073	004	107	228	000	-063	055	-027	-016	107	100	095	120	035	132	053	092	183
8		R-108	BIOL.SCI.	8	341	476	451	460	507	228	499	236	108	137	131	278	084	026	111	226	025	-029	076	017	018	119	110	114	134	056	145	067	099	166
9		R-109	SCI.ATT.	9	347	446	508	439	522	244	515	302	139	148	156	303	095	002	109	217	012	-065	046	-059	036	128	082	094	109	036	101	020	097	128
10		R-110	AERO.-SP.	10	265	251	282	276	310	199	318	129	084	100	118	135	076	028	107	101	036	-009	082	024	-002	103	097	052	121	024	092	020	104	112
11		R-111	ELEC.	11	233	232	297	297	330	197	336	167	091	101	085	207	072	030	075	175	023	-007	055	026	-000	066	067	044	092	045	077	023	047	129
12		R-112	MECH.	12	327	317	388	340	402	180	395	214	116	093	123	234	066	-026	098	181	-012	-076	060	-007	036	052	080	098	109	012	076	001	095	114
13		R-113	FARM.	13	339	391	453	419	482	183	467	313	124	116	118	336	077	-047	078	256	-002	-114	024	-015	010	063	077	109	098	028	102	004	086	131
14		R-114	HOME EC.	14	306	347	412	345	417	162	404	272	125	121	122	279	084	-010	086	204	009	-068	038	-013	039	098	075	089	108	061	099	003	053	122
15		R-115	SPORTS	15	298	365	407	415	457	232	456	267	121	160	111	312	095	032	084	253	032	-031	044	027	074	098	115	151	127	059	130	080	113	155
16		R-190	INF.TOT.	16	483	571	679	671	749	366	743	399	189	227	201	431	145	036	154	330	040	-056	085	001	042	176	149	145	188	088	199	079	147	246
17	ENGLISH	R-211	MEM./SEN.	17	212	248	311	293	335	157	330	226	119	123	111	286	099	048	090	244	039	006	057	006	047	096	018	079	100	058	087	034	096	135
18		R-212	MEM./WDS.	18	315	384	449	464	508	236	501	302	119	178	141	344	108	056	104	273	053	-008	052	-032	029	120	041	080	086	043	108	029	090	143
19		R-220	DISC.WDS.	19	303	433	467	452	510	228	501	325	224	344	281	383	242	252	252	312	162	172	193	067	141	223	119	148	158	138	170	115	151	213
20		R-231	SPELLING	20	212	330	426	449	487	210	477	400	174	273	142	458	164	153	103	366	087	075	049	-003	065	147	061	089	113	116	165	098	096	210
21		R-232	CAP.	21	263	383	398	383	433	185	423	386	187	193	187	413	148	061	144	313	047	-008	081	-018	080	133	031	073	107	103	122	023	053	122
22		R-233	PUNCT.	22	392	518	590	615	671	292	658	435	181	245	199	472	128	062	146	362	022	-030	072	-033	051	146	062	094	125	092	166	055	091	198
23		R-234	ENG.USAGE	23	290	401	463	468	517	227	507	314	132	175	144	334	080	030	100	253	-007	-040	041	-039	035	133	046	086	128	085	144	054	101	161
24		R-235	EF.EXP.	24	296	410	442	379	452	207	446	302	137	124	140	288	075	-009	085	197	-019	-068	014	-090	053	109	020	057	075	072	092	018	056	103
25		R-230	ENG.TOT.	25	386	540	610	610	678	296	665	484	213	267	215	520	157	079	155	396	035	-019	072	-043	073	175	059	105	145	121	182	064	104	210
26		R-240	WD.FUNCT.	26	437	527	606	628	686	351	684	366	167	204	196	416	147	068	157	331	066	-004	097	-066	023	116	063	085	124	056	122	094	095	196
27		R-250	RD.COMP.	27	449	578	661	590	691	305	678	409	218	242	210	402	162	040	155	282	039	-058	077	-042	039	183	127	119	148	076	166	058	122	207
28		R-260	CREAT.	28	419	466	503	453	529	284	530	286	161	204	222	303	129	064	189	228	043	-009	131	001	051	124	075	109	129	068	124	053	103	164
29		R-270	MECH.REAS.	29	548	542	467	452	510	268	510	237	162	173	236	253	127	052	207	192	038	-010	154	-040	016	067	074	090	086	001	060	008	094	078
30		R-281	VIS.2 DIM.	30	461	410	329	349	378	205	379	236	219	195	298	282	211	138	283	232	117	092	235	029	019	048	050	067	069	034	056	004	054	081
31		R-282	VIS.3 DIM.	31		526	440	425	480	250	479	238	182	171	267	256	140	063	232	195	040	004	168	-088	-034	034	045	055	079	017	049	013	046	085
32		R-290	ABST.REAS.	32	526		537	505	577	262	568	326	204	200	255	339	154	051	203	251	040	-025	123	-108	008	093	014	075	083	042	087	022	053	096
33		R-311	I.AR.REAS.	33	440	537		615	875	341	849	399	163	202	156	437	138	040	104	337	056	-040	035	-072	009	105	072	075	102	037	103	047	088	174
34		R-312	II.INTROD.	34	425	505	615		920	427	907	419	174	209	173	484	152	077	134	388	068	006	077	-028	020	118	062	089	126	064	138	089	113	222
35		R-320	MATH.I+II.	35	480	577	875	920		432	979	456	188	229	184	514	162	067	134	406	070	-016	064	-053	017	124	074	092	128	057	136	078	113	223
36		R-333	III.ADV.	36	250	262	341	427	432		605	181	074	117	110	222	082	062	098	186	057	027	074	-014	-015	055	065	040	074	031	058	054	068	122
37		R-340	MATH.TOT.	37	479	568	849	907	979	605		443	183	228	187	504	162	073	140	400	074	-009	073	-050	012	122	080	090	130	058	133	081	115	224
38		F-410	AR.COMP.	38	238	326	399	419	456	181	443		254	242	165	729	186	062	102	344	042	-029	021	-014	099	093	-000	086	091	109	106	015	094	147
39		F-420	TBL.RDG.	39	182	204	163	174	188	074	183	254		329	368	266	800	285	371	198	269	221	334	127	141	092	019	099	099	128	099	028	079	096
40		F-430	CLER.CHK.	40	171	200	202	209	229	117	228	242	329		352	299	352	760	354	251	231	535	318	172	136	121	081	119	107	134	121	109	094	153
41		F-440	OBJ.INSP.	41	267	255	156	173	184	110	187	165	368	352		240	412	368	953	220	288	319	795	178	130	093	059	110	079	095	115	077	112	079
42		R-410	AR.COMP.	42	256	339	437	484	514	222	504	729	266	299	240		326	220	230	893	254	150	195	117	171	139	057	158	159	167	189	101	137	254
43		R-420	TBL.RDG.	43	140	154	138	152	162	082	162	186	800	352	412	326		438	459	325	793	410	461	256	161	121	065	115	118	135	128	102	098	132
44		R-430	CLER.CHK.	44	063	051	040	077	067	062	073	062	285	760	368	220	438		435	261	415	956	461	296	148	109	113	118	105	128	127	148	106	146
45		R-440	OBJ.INSP.	45	232	203	104	134	134	098	140	102	371	354	953	230	459	435		249	361	405	942	250	144	095	083	122	090	108	126	104	117	089
46		A-410	AR.COMP.	46	195	251	337	388	406	186	400	344	198	251	220	893	325	261	249		321	225	253	170	169	130	079	161	159	158	190	129	127	252
47		A-420	TBL.RDG.	47	040	040	056	068	070	057	074	042	269	231	288	254	793	415	361	321		435	402	282	115	102	085	085	089	087	105	135	078	114
48		A-430	CLER.CHK.	48	004	-025	-040	006	-016	027	-009	-029	221	535	319	150	410	956	405	225	435		455	307	131	088	110	099	088	106	110	143	095	120
49		A-440	OBJ.INSP.	49	168	123	035	077	064	074	073	021	334	318	795	195	461	461	942	253	402	455		302	143	086	100	122	093	109	124	122	109	091
50		A-500	PREF.	50	-088	-108	-072	-028	-053	-014	-050	-014	127	172	178	117	256	296	250	170	282	307	302		183	113	186	148	132	127	142	137	114	137
51		R-601	SOCIAB.	51	-034	008	009	020	017	-015	012	099	141	136	130	171	161	148	144	169	115	131	143	183		501	209	507	404	392	433	352	392	373
52		R-602	SOC.SENSI.	52	034	093	105	118	124	055	122	093	092	121	093	139	121	109	095	130	102	088	086	113	501		213	399	557	499	597	373	293	562
53		R-603	IMPULS.	53	045	014	072	062	074	065	080	-000	019	081	059	057	065	113	083	079	085	110	100	186	209	213		256	135	088	195	235	126	199
54		R-604	VIGOR	54	055	075	075	089	092	040	090	086	099	119	110	158	115	118	122	161	085	099	122	148	507	399	256		382	377	440	400	302	457
55		R-605	CALMNESS	55	079	083	102	126	128	074	130	091	099	107	079	159	118	105	090	159	089	088	093	132	404	557	135	382		508	533	359	415	573
56		R-606	TIDINESS	56	017	042	037	064	057	031	058	109	128	134	095	167	135	128	108	158	087	106	109	127	392	499	088	377	508		589	324	258	598
57		R-607	CULTURE	57	049	087	103	138	136	058	133	106	099	121	115	189	128	127	126	190	105	110	124	142	433	397	195	440	533	589		416	317	595
58		R-608	LEADER.	58	013	022	047	089	078	054	081	015	028	109	077	101	102	148	104	129	135	143	122	137	352	373	235	400	359	324	416		306	472
59		R-609	SELF-CONF.	59	046	053	088	113	113	068	115	094	079	094	112	137	098	106	117	127	078	095	109	114	392	293	126	302	415	258	317	306		370
60		R-610	MATUR.	60	085	096	174	222	223	122	224	147	096	153	079	254	132	146	089	252	114	120	091	137	373	562	169	457	573	598	595	472	370	

* Decimal points omitted.

TABLE 2-7f

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-10 Students, Subsample 0 (N=7573)

Var.	Code	Description		R-101 SCREEN.	R-102 VOCAB.	R-103 LIT.	R-104 MUSIC	R-105 SOC.STUD.	R-106 MATH	R-107 PHYS.SCI.	R-108 BIOL.SCI.	R-109 SCI.ATT.	R-110 AERO.-SP.	R-111 ELEC.	R-112 MECH.	R-113 FARM.	R-114 HOME EC.	R-115 SPORTS	R-190 INF.TOT.	R-211 MEM./SEN.	R-212 MEM./WDS.	R-220 DISC.WDS.	R-231 SPELLING	R-232 CAP.	R-233 PUNCT.	R-234 ENG.USAGE	R-235 EF.EXP.	R-230 ENG.TOT.	R-240 WD.FUNCT.	R-250 RD.COMP.	R-260 CREAT.	R-270 MECH.REAS.	R-281 VIS.2DIM.	MEAN	S.D.
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1	R-101	SCREEN.	1		366	347	315	391	270	270	292	318	168	187	232	327	351	257	442	167	221	308	316	398	355	344	301	439	245	386	260	143	138	11.4070	1.2607
2	R-102	VOCAB.	2	366		710	635	733	682	689	623	581	557	531	535	568	334	557	882	261	422	545	416	413	564	511	448	601	535	732	590	527	342	11.5646	4.1254
3	R-103	LIT.	3	347	710		651	712	620	589	540	492	463	388	367	452	329	495	800	230	421	524	419	391	530	472	416	568	506	697	510	379	254	11.6307	4.3203
4	R-104	MUSIC	4	315	635	651		598	559	493	448	440	353	300	261	367	396	410	698	205	398	530	417	347	508	447	403	539	496	611	466	289	214	5.6783	2.9131
5	R-105	SOC.STUD.	5	391	733	712	598		632	664	585	511	507	475	471	529	284	583	852	230	386	465	390	385	526	447	402	554	487	695	507	458	295	13.2262	5.3389
6	R-106	MATH.	6	270	682	620	559	632		634	536	467	476	469	426	417	250	506	787	231	399	480	411	348	559	450	388	553	602	616	509	493	340	8.0829	4.6544
7	R-107	PHYS.SCI.	7	270	689	589	493	664	634		615	461	579	632	529	506	216	496	817	208	346	404	294	316	452	388	329	458	459	591	523	557	340	7.8855	3.8171
8	R-108	BIOL.SCI.	8	292	623	540	448	585	536	615		440	471	464	479	542	259	422	729	223	313	367	274	304	410	375	325	433	400	555	471	474	273	6.0028	2.3681
9	R-109	SCI.ATT.	9	318	581	492	440	511	467	461	440		339	311	340	424	328	369	631	211	321	411	322	372	464	428	412	509	432	585	435	357	260	5.7160	1.9722
10	R-110	AERO.-SP.	10	168	557	463	353	507	476	579	471	339		602	572	387	013	491	664	083	160	260	111	183	237	238	200	249	241	425	429	558	295	3.5117	2.2490
11	R-111	ELEC.	11	187	531	388	300	475	469	632	464	311	602		650	398	034	426	669	094	149	226	090	166	213	201	166	217	212	355	434	585	305	7.0537	3.8543
12	R-112	MECH.	12	232	535	367	261	471	426	529	479	340	572	650		523	001	502	661	103	111	218	069	185	182	211	167	210	169	353	436	617	335	9.5542	3.7930
13	R-113	FARM.	13	327	568	452	367	529	417	506	542	424	387	398	523		290	415	667	226	273	339	266	325	380	368	305	422	326	503	438	451	272	7.4104	2.5419
14	R-114	HOME EC.	14	351	334	329	396	284	250	216	259	328	013	034	001	290		050	390	221	305	333	353	341	426	376	345	469	356	413	297	031	086	10.1743	3.7394
15	R-115	SPORTS	15	257	557	495	410	583	506	496	422	369	491	426	502	415	050		670	091	228	322	219	256	284	269	255	326	291	455	398	437	272	6.4322	3.0169
16	R-190	INF.TOT.	16	442	882	800	698	852	787	817	729	631	664	669	661	667	390	670		267	434	552	421	446	588	527	463	626	563	768	646	614	388	125.3317	35.7380
17	R-211	MEM./SEN.	17	166	261	230	205	230	231	208	223	211	083	094	103	226	221	091	267		373	223	236	273	315	280	267	350	254	332	243	152	148	9.0026	3.0290
18	R-212	MEM./WDS.	18	221	422	421	398	386	399	346	313	321	160	149	111	273	305	228	434	373		403	399	331	465	376	336	487	345	485	353	213	193	11.0217	5.2565
19	R-220	DISC.WDS.	19	308	545	524	530	465	480	404	367	411	260	226	218	339	333	322	552	223	403		517	384	550	485	412	596	505	610	474	319	288	13.9608	6.7915
20	R-231	SPELLING	20	316	416	419	417	390	411	294	274	322	111	090	069	266	353	219	421	236	399	517		469	593	497	401	740	477	506	317	094	122	8.9915	2.9879
21	R-232	CAP.	21	398	413	391	347	396	348	316	304	372	183	166	185	325	341	256	446	273	331	384	469		573	532	472	796	362	482	324	212	210	29.0647	4.0874
22	R-233	PUNCT.	22	355	564	530	508	526	559	452	410	464	237	213	182	380	426	284	588	315	465	550	593	573		617	535	872	628	653	444	300	270	16.8819	4.6564
23	R-234	ENG.USAGE	23	344	511	472	447	447	450	388	375	428	238	201	211	368	376	269	527	280	376	485	497	532	617		519	802	471	566	393	255	208	16.1904	3.3921
24	R-235	EF.EXP.	24	301	448	416	403	402	388	329	325	412	200	166	167	305	345	255	463	267	336	412	401	472	535	519		703	426	559	384	236	193	8.2357	2.4383
25	R-230	ENG.TOT.	25	439	661	568	539	554	553	458	433	509	249	217	210	422	469	326	626	350	487	596	740	796	872	802	703		606	702	473	286	262	79.3643	13.9580
26	R-240	WD.FUNCT.	26	245	535	506	496	487	602	459	400	432	241	212	169	326	356	291	563	254	445	505	477	362	626	471	426	606		636	471	323	272	9.6227	5.3151
27	R-250	RD.COMP.	27	386	732	697	611	695	616	591	555	585	425	355	353	503	413	455	768	332	485	610	506	482	653	568	559	702	636		619	439	331	28.1297	10.6762
28	R-260	CREAT.	28	260	590	510	466	507	509	523	471	435	429	434	436	438	297	398	646	243	353	474	317	324	444	393	384	473	474	619		511	351	8.1373	3.8416
29	R-270	MECH.REAS.	29	143	527	379	289	458	493	557	474	357	558	585	617	451	031	437	614	152	213	319	094	212	300	255	236	286	323	439	511		501	10.0502	4.3115
30	R-281	VIS.2 DIM.	30	138	342	254	214	295	340	340	273	260	295	305	335	272	086	272	388	148	193	388	122	210	270	208	193	262	272	331	351	501		12.5782	5.7441
31	R-282	VIS.3 DIM.	31	109	421	342	301	381	438	445	370	318	373	377	367	332	172	282	490	166	239	283	151	228	341	265	272	325	377	437	457	580	480	8.1763	3.2323
32	R-290	ABST.REAS.	32	215	504	442	40	464	491	471	393	420	324	311	300	347	250	336	549	223	335	417	310	361	486	382	393	496	481	566	480	517	420	8.3803	3.0977
33	R-311	I.AR.REAS.	33	240	505	524	461	580	612	555	470	496	382	383	382	434	290	417	666	268	394	439	384	392	558	451	435	569	562	635	507	469	328	7.8113	3.4416
34	R-312	II.INTROD.	34	249	600	545	485	569	737	564	470	446	390	374	326	392	271	422	672	262	422	450	433	393	596	469	421	594	611	602	481	447	345	10.0516	4.4461
35	R-320	MATH.I+II.	35	269	663	589	522	631	751	616	517	515	425	416	386	451	307	461	736	291	451	490	453	432	637	507	470	641	648	678	542	502	371	17.8629	7.1883
36	R-333	III.ADV.	36	127	370	339	301	334	502	349	277	273	284	286	224	197	114	287	421	139	243	270	221	200	323	259	221	315	385	339	319	311	230	2.8319	1.8653
37	R-340	MATH.TOT.	37	263	661	590	523	625	768	616	513	510	435	427	387	438	294	467	737	285	448	488	445	421	628	501	459	630	652	667	545	508	376	20.6948	8.2494
38	F-410	AR.COMP.	38	283	329	298	283	345	332	258	231	304	132	125	137	261	276	258	367	223	274	305	391	397	432	346	342	488	353	415	282	172	205	25.4375	22.6722
39	F-420	TBL.RDG.	39	201	172	166	173	187	161	129	127	162	071	070	066	124	164	115	196	142	141	233	203	237	236	200	198	275	181	260	195	126	212	7.8013	10.2987
40	F-430	CLER.CHK.	40	189	167	194	206	167	172	109	115	146	053	020	008	096	181	097	181	116	197	338	291	202	257	208	172	288	223	253	184	090	173	22.8439	21.4212
41	F-440	OBJ.INSP.	41	150	150	154	161	130	131	115	133	140	080	049	058	097	148	059	164	128	129	267	141	171	202	167	148	214	183	210	208	189	278	20.6682	8.1513
42	R-410	AR.COMP.	42	336	343	313	295	362	390	260	249	300	123	120	139	296	274	290	389	265	342	389	453	417	476	354	320	520	415	401	292	173	253	36.5469	10.2332
43	R-420	TBL.RDG.	43	140	103	094	108	120	121	071	082	084	044	039	046	070	083	081	121	085	107	236	138	121	133	097	079	147	128	147	132	100	193	11.8017	7.3151
44	R-430	CLER.CHK.	44	112	-006	022	058	008	045	-031	007	-001	-045	-065	-088	-039	058	-016	-002	033	082	253	151	057	075	052	006	087	091	043	039	-017	111	37.1099	14.6980
45	R-440	OBJ.INSP.	45	125	096	104	125	077	089	070	100	085	054	023	029	054	112	023	107	097	096	245	093	113	135	105	082	138	144	140	170	158	262	22.4034	7.1292
46	A-410	AR.COMP.	46	235	211	193	182	224	271	154	158	172	065	067	082	198	159	193	243	185	250	289	311	259	311	214	171	328	288	226	179	101	183	40.2501	10.3959
47	A-420	TBL.RDG.	47	-002	-027	-032	-019	-016	011	-028	-010	-042	-009	-014	000	-024	-047	000	-024	-022	012	101	-006	-064	-048	-062	-086	-066	001	-051	-007	016	062	15.8021	10.3149
48	A-430	CLER.CHK.	48	055	-085	-062	-022	-068	-022	-090	-045	-069	-081	-093	-116	-094	-010	-065	-087	-011	013	166	057	-021	-025	-031	-073	-022	012	-062	-036	-064	061	41.8652	15.3605
49	A-440	OBJ.INSP.	49	077	021	032	065	005	028	008	047	009	017	-010	-009	-003	053	-021	026	048	044	182	025	030	040	018	-006	031	077	041	100	098	203	24.1387	7.2310
50	A-500	PREF.	50	139	-028	-003	-004	002	-033	-040	-013	-058	-025	-026	-003	-008	-014	029	-016	-001	-010	055	-010	-004	-047	-039	-097	-045	-063	-053	-028	-063	002	58.7853	23.8405
51	R-601	SOCIAB.	51	230	038	054	102	027	004	-014	-008	064	-067	-085	-051	008	150	057	033	062	064	159	122	131	101	080	082	132	052	072	028	-073	-001	6.4285	2.9391
52	R-602	SOC.SENSI.	52	187	129	160	207	106	090	044	058	128	-014	-052	-097	023	228	-008	109	098	143	226	190	154	194	162	141	215	143	181	091	-073	-012	4.3501	2.3509
53	R-603	IMPULS.	53	083	093	111	102	068	060	047	046	054	043	027	030	044	057	065	088	-005	024	098	046	016	024	019	-020	024	032	064	042	013	015	1.9231	1.6268
54	R-604	VIGOR	54	172	154	138	153	151	143	109	138	121	084	062	100	133	088	193	179	075	085	175	121	106	119	113	088	140	098	148	131	091	080	3.5191	2.1168
55	R-605	CALMNESS	55	193	175	175	178	161	178	117	133	135	106	071	061	110	145	112	192	104	114	184	150	139	168	149	117	185	148	180	138	058	067	3.9158	2.4096
56	R-606	TIDINESS	56	199	090	107	154	078	095	014	030	067	-023	-043	-070	017	189	024	084	080	095	181	193	157	176	143	128	203	111	127	070	-076	005	5.3930	2.7908
57	R-607	CULTURE	57	191	093	145	212	096	096	026	059	081	-050	-069	-100	048	223	-011	095	097	129	174	183	139	189	149	113	199	141	141	073	-092	-012	4.9346	2.3249
58	R-608	LEADER.	58	052	065	079	118	060	106	042	038	033	008	001	-022	-003	036	083	069	022	041	118	099	023	066	047	016	064	093	060	041	-023	-009	1.1979	1.3023
59	R-609	SELF-CONF.	59	165	150	151	145	141	144	109	119	117	108	075	094	101	082	127	170	091	112	167	126	102	125	125	095	146	112	157	121	080	063	4.8715	2.3988
60	R-610	MATUR.	60	190	189	191	199	193	222	145	135	135	080	084	057	115	149	112	211	112	147	218	208	131	211	163	115	213	201	200	157	040	058	10.5151	5.0208

*Decimal points omitted.

TABLE 2-7f (continued)*

Var.	Code	Description		R-282 VIS.3 DIM. 31	R-290 ABST.REAS. 32	R-311 I.AR.RFAS. 33	R-312 II.INTROD. 34	R-320 MATH.I+II. 35	R-333 III.ADV. 36	R-340 MATH.TOT. 37	R-410 AR.COMP. 38	R-420 TBL.RDG. 39	R-430 CLER.CHK. 40	R-440 OBJ.INSP. 41	R-410 AR.COMP. 42	R-420 TBL.RDG. 43	R-430 CLER.CHK. 44	R-440 OBJ.INSP. 45	A-410 AR.COMP. 46	A-420 TBL.RDG. 47	A-430 CLER.CHK. 48	A-440 OBJ.INSP. 49	A-500 PREF. 50	R-601 SOCIAB. 51	R-602 SOC.SENSI. 52	R-603 IMPULS. 53	R-604 VIGOR 54	R-605 CALMNESS 55	R-606 TIDINESS 56	R-607 CULTURE 57	R-608 LEADER. 58	R-609 SELF-CONF. 59	R-610 MATUR. 60
1	R-101	SCREEN.	1	109	215	240	249	269	127	263	283	201	189	150	336	140	112	125	235	-002	055	077	139	230	187	083	172	193	199	191	052	165	190
2	R-102	VOCAB.	2	421	504	605	600	663	370	661	329	172	167	150	343	103	-006	096	211	-027	-085	021	-028	038	129	093	154	175	090	093	065	150	189
3	R-103	LIT.	3	342	442	524	545	589	339	590	298	166	194	154	313	094	022	104	193	-032	-062	032	-003	054	160	111	138	175	107	145	079	151	191
4	R-104	MUSIC	4	301	401	461	485	522	301	523	283	173	206	161	295	108	058	125	182	-019	-022	065	-004	102	207	102	153	178	154	212	118	145	199
5	R-105	SOC.STUD.	5	381	464	580	569	631	334	625	345	187	167	130	362	120	008	077	224	-016	-068	005	002	027	106	068	151	161	078	096	060	141	193
6	R-106	MATH.	6	438	491	612	737	751	502	768	332	161	172	131	390	121	045	089	271	011	-022	028	-033	004	090	060	143	178	095	096	106	144	222
7	R-107	PHYS.SCI.	7	445	471	555	564	616	349	616	258	129	109	115	260	071	-031	070	154	-028	-090	008	-040	-044	044	047	109	117	014	026	042	109	145
8	R-108	BIOL.SCI.	8	370	393	470	470	517	277	513	231	127	115	133	249	082	007	100	158	-010	-045	047	-013	-008	058	046	138	133	030	059	038	119	134
9	R-109	SCI.ATT.	9	318	420	496	446	515	273	510	304	162	146	140	300	084	-001	085	172	-042	-069	009	-058	064	128	054	121	135	067	081	033	117	135
10	R-110	AERO.-SP.	10	373	324	382	390	425	284	435	132	071	053	080	123	044	-045	054	065	-009	-081	017	-025	-067	-014	043	084	106	-023	-050	008	108	080
11	R-111	ELEC.	11	377	311	383	374	416	286	427	125	070	020	049	120	039	-065	023	067	-014	-093	-010	-026	-085	-052	027	062	071	-043	-069	001	075	084
12	R-112	MECH.	12	367	300	382	326	386	224	387	137	066	008	058	139	046	-088	029	082	000	-116	-009	-003	-051	-097	030	100	061	-070	-100	-022	094	057
13	R-113	FARM.	13	332	347	434	392	451	197	438	261	124	096	097	2[illegible]	070	-039	054	198	-024	-094	-003	-008	008	023	044	133	110	017	048	-003	101	115
14	R-114	HOME EC.	14	172	250	290	271	307	114	294	276	164	181	148	2[illegible]	083	058	112	159	-047	-010	053	-014	150	228	057	088	145	189	223	036	082	149
15	R-115	SPORTS	15	282	336	417	422	461	287	467	258	115	097	059	290	081	-016	023	193	000	-065	-021	029	057	-008	065	193	112	024	-011	083	127	112
16	R-190	INF.TOT.	16	490	549	666	672	736	421	737	367	196	181	164	389	121	-002	107	243	-024	-087	026	-016	033	109	088	179	192	084	095	069	170	211
17	R-211	MEM./SEN.	17	166	223	268	262	291	139	285	223	142	116	128	265	085	033	097	[illegible]	-022	-011	048	-001	062	098	-005	075	104	080	097	022	091	112
18	R-212	MEM./WDS.	18	239	335	394	422	451	243	448	274	141	197	129	342	107	082	096	250	012	013	044	-010	064	143	024	085	114	095	129	041	112	147
19	R-220	DISC.WDS.	19	283	417	439	450	490	270	488	305	233	338	267	389	236	253	245	289	101	166	182	055	159	226	098	175	184	181	174	118	167	218
20	R-231	SPELLING	20	151	310	384	433	453	221	445	391	203	291	141	453	138	151	093	311	-006	057	025	-010	122	190	046	121	150	193	183	099	126	208
21	R-232	CAP.	21	228	361	392	393	432	200	421	397	237	202	171	417	121	057	113	259	-064	-021	030	-004	131	154	016	106	139	157	139	023	102	131
22	R-233	PUNCT.	22	341	486	558	596	637	323	628	432	236	257	202	476	133	075	135	311	-048	-025	040	-047	101	194	024	119	168	176	189	066	125	211
23	R-234	ENG.USAGE	23	265	382	451	469	507	259	501	346	200	208	167	354	097	052	105	214	-062	-031	018	-039	080	162	019	113	149	143	149	047	125	163
24	R-235	SP.EXP.	24	272	393	435	421	470	221	459	342	198	172	148	320	079	006	082	171	-086	-073	-006	-097	082	141	-020	088	117	128	113	016	095	115
25	R-230	ENG.TOT.	25	325	496	569	594	641	315	630	488	275	288	214	520	147	087	138	328	-066	-022	031	-045	132	215	024	140	185	203	199	064	146	213
26	R-240	WD.FUNCT.	26	377	481	562	611	648	385	652	353	181	223	183	415	128	091	144	288	001	012	077	-063	052	143	032	098	148	111	141	093	112	201
27	R-250	RD.COMP.	27	437	566	635	602	678	339	667	415	260	253	210	401	147	043	140	226	-051	-062	041	-053	072	181	064	148	180	127	141	060	157	200
28	R-260	CREAT.	28	457	480	507	481	542	319	545	282	195	184	208	292	132	039	170	179	-007	-036	100	-028	028	091	042	131	138	070	073	041	121	157
29	R-270	MECH.REAS.	29	580	517	469	447	502	311	508	172	126	090	189	173	100	-017	158	101	016	-064	098	-063	-073	-073	013	091	058	-076	-092	-023	080	040
30	R-281	VIS.2 DIM.	30	480	420	328	345	371	230	376	205	212	173	278	253	193	111	262	183	062	061	203	002	-001	-012	015	080	067	005	-012	-009	063	058
31	R-282	VIS.3 DIM.	31		539	448	432	483	277	484	209	175	146	236	212	108	024	201	126	-022	-037	130	-110	-064	-018	-001	049	059	-009	-013	-007	055	061
32	R-290	ABST.REAS.	32	539		525	511	589	287	560	327	220	193	244	328	135	032	190	193	-028	-050	099	-112	-003	056	-011	077	087	039	037	007	059	082
33	R-311	I.AR.RFAS.	33	448	525		647	862	382	855	387	183	171	129	423	111	004	066	273	-025	-074	-015	-090	-002	069	032	096	118	050	043	037	096	153
34	R-312	II.INTROD.	34	432	511	647		930	480	919	414	199	199	154	483	139	052	101	332	-001	-026	025	-051	009	091	027	104	146	087	086	073	129	197
35	R-320	MATH.I+II.	35	483	569	882	930		481	980	442	211	205	157	502	139	034	094	337	-013	-052	008	-075	005	089	032	111	148	078	074	063	126	195
36	R-333	III.ADV.	36	277	287	382	480	481		645	175	082	097	084	252	084	043	071	204	037	009	044	-010	-020	028	044	072	101	040	033	070	086	121
37	R-340	MATH.TOT.	37	484	560	855	919	980	645		425	203	201	156	494	140	040	098	340	-003	-043	017	-067	-000	084	038	113	152	077	072	070	129	198
38	F-410	AR.COMP.	38	209	327	387	414	442	175	425		312	250	173	656	144	026	081	134	-108	-084	-034	-046	112	106	-021	105	102	132	097	017	104	127
39	F-420	TBL.RDG.	39	175	220	183	199	211	082	203	312		323	360	279	709	212	316	139	008	120	217	074	125	103	-008	098	097	123	097	010	069	086
40	F-430	CLER.CHK.	40	146	193	171	199	205	097	201	250	323		348	291	333	711	339	201	149	443	277	109	133	138	056	113	126	161	140	094	104	143
41	F-440	OBJ.INSP.	41	236	244	129	154	157	084	156	173	360	348		241	359	336	936	191	149	265	718	124	107	092	028	091	082	100	099	049	097	081
42	R-410	AR.COMP.	42	212	328	423	483	502	252	494	656	279	291	241		307	224	230	834	155	150	180	111	193	153	060	181	184	202	181	108	159	239
43	R-420	TBL.RDG.	43	108	135	111	139	139	084	140	144	709	333	359	307		432	427	295	711	396	439	256	131	099	066	109	113	118	104	074	089	110
44	R-430	CLER.CHK.	44	024	032	004	052	034	043	040	026	212	711	334	224	432		425	276	402	945	460	264	154	131	115	109	129	144	146	135	104	142
45	R-440	OBJ.INSP.	45	201	190	066	101	094	071	098	081	316	339	936	230	427	425		240	291	383	918	205	119	095	059	100	089	108	110	075	101	087
46	A-410	AR.COMP.	46	126	193	273	332	337	204	340	134	139	201	191	834	295	276	240		282	258	260	179	172	125	093	161	167	170	167	129	132	222
47	A-420	TBL.RDG.	47	-022	-028	-025	-001	-013	037	-003	-108	008	149	149	155	711	402	291	282		442	406	289	060	037	101	056	062	044	050	095	056	070
48	A-430	CLER.CHK.	48	-037	-050	-074	-026	-052	009	-043	-084	120	443	265	150	396	945	383	258	442		458	286	134	103	120	087	106	109	122	129	084	115
49	A-440	OBJ.INSP.	49	130	099	-015	025	008	044	017	-034	217	277	718	180	439	460	918	260	406	458		264	115	083	085	095	083	100	106	093	089	080
50	A-500	PREF.	50	-110	-112	-090	-051	-075	-010	-067	-046	074	109	124	111	256	264	205	179	289	286	264		189	109	224	145	143	140	151	152	106	147
51	R-601	SOCIAB.	51	-064	-003	-002	009	005	-020	-000	112	125	133	107	193	131	154	119	172	060	134	115	189		527	249	501	425	435	468	368	365	411
52	R-602	SOC.SENSI.	52	-018	056	069	091	089	028	084	106	103	138	092	153	099	131	095	125	037	103	083	109	527		226	420	557	542	618	396	270	579
53	R-603	IMPULS.	53	-001	-011	032	027	032	044	038	-021	-008	056	028	060	066	115	059	093	101	120	085	224	249	226		245	164	130	212	263	117	215
54	R-604	VIGOR	54	049	077	096	104	111	072	113	105	098	113	091	181	109	109	100	161	056	087	095	145	501	420	245		422	420	430	400	296	505
55	R-605	CALMNESS	55	059	087	118	146	148	101	152	102	097	126	082	184	113	129	089	167	062	106	083	143	425	557	164	422		528	525	370	414	591
56	R-606	TIDINESS	56	-009	039	050	087	078	040	077	132	123	161	100	202	118	144	108	170	044	109	100	140	435	542	130	420	528		606	342	283	619
57	R-607	CULTURE	57	-013	037	043	086	074	033	072	097	097	140	099	181	104	146	110	167	050	122	106	151	468	618	312	430	525	606		396	293	587
58	R-608	LEADER.	58	-007	007	037	073	063	070	070	017	010	094	049	108	074	135	075	129	095	129	093	152	368	396	263	400	370	342	396		269	471
59	R-609	SELF-CONF.	59	055	059	096	129	126	086	129	104	069	104	097	159	089	104	101	132	056	084	089	106	365	270	117	296	414	283	293	269		382
60	R-610	MATUR.	60	061	082	153	197	195	121	198	127	086	143	081	239	110	142	087	222	070	115	080	147	411	579	215	505	591	619	587	471	382	

*Decimal points omitted.

TABLE 2-7g

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-11 Boys, Subsample 0 (N=3619)

Var.	Code	Description		R-101 SCREEN.	R-102 VOCAB.	R-103 LIT.	R-104 MUSIC	R-105 SOC.STUD.	R-106 MATH	R-107 PHYS.SCI.	R-108 BIOL.SCI.	R-109 SCI.ATT.	R-110 AERO.-SP.	R-111 ELEC.	R-112 MECH.	R-113 FARM.	R-114 HOME EC.	R-115 SPORTS	R-190 INF.TOT.	R-211 MEM./SENT.	R-212 MEM./WDS.	R-220 DISC.WDS.	R-231 SPELLING	R-232 CAP.	R-233 PUNCT.	R-234 ENG.USAGE	R-235 EF.EXP.	R-230 ENG.TOT.	R-240 WD.FUNCT.	R-250 RD.COMP.	R-260 CREAT.	R-270 MECH.REAS.	R-281 VIS.2DIM.	MEAN	S.D.
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1	R-101	SCREEN.	1		407	360	306	446	292	330	299	325	253	278	376	359	305	354	482	112	232	302	290	366	309	338	271	410	216	392	294	235	162	11.4396	1.2617
2	R-102	VOCAB.	2	407		718	650	737	698	730	623	581	640	604	571	483	495	554	886	174	415	567	455	438	576	547	495	651	534	758	608	538	317	13.2678	3.9702
3	R-103	LIT.	3	360	718		674	730	635	646	563	512	569	463	403	371	429	550	817	149	411	535	462	375	529	499	437	595	514	697	531	386	230	13.0246	4.5287
4	R-104	MUSIC	4	306	650	674		615	572	575	483	446	512	438	363	296	405	491	730	103	353	521	408	341	474	450	388	534	449	605	490	334	213	5.9740	2.9959
5	R-105	SOC.STUD.	5	446	737	730	615		651	700	606	534	562	487	448	444	453	592	850	146	409	478	452	421	566	500	461	624	499	726	525	422	242	16.1058	5.2752
6	R-106	MATH.	6	292	698	635	572	651		725	516	495	532	532	410	319	405	530	811	170	445	504	466	382	625	511	458	637	643	665	523	491	320	10.4838	5.9691
7	R-107	PHYS.SCI.	7	330	730	646	575	700	725		636	511	632	668	513	423	459	481	856	185	407	485	401	367	572	482	433	589	527	678	569	557	312	9.6822	4.1425
8	R-108	BIOL.SCI.	8	299	623	563	483	606	516	636		453	521	516	477	468	440	381	724	185	337	391	311	323	434	411	367	480	414	588	492	466	253	6.6784	2.2677
9	R-109	SCI.ATT.	9	325	581	512	446	534	495	511	453		439	417	433	365	382	418	653	143	205	402	302	345	445	428	416	501	411	581	465	415	244	6.1279	1.9305
10	R-110	AERO.-SP.	10	253	640	569	512	562	532	632	521	439		594	479	351	383	396	725	140	280	401	282	294	414	380	343	446	397	584	518	496	246	4.7997	2.3939
11	R-111	ELEC.	11	278	604	463	438	487	532	668	516	417	594		602	380	431	280	722	126	272	348	213	278	374	336	313	396	351	491	520	572	297	9.6344	4.2407
12	R-112	MECH.	12	376	571	403	363	448	410	513	477	433	479	602		532	445	311	659	153	257	342	224	332	347	353	313	409	279	471	488	548	286	12.8124	3.2526
13	R-113	FARM.	13	359	483	371	296	444	319	423	468	365	351	380	532		377	295	559	174	256	290	244	307	342	331	270	392	268	434	413	418	207	8.2114	2.2470
14	R-114	HOME EC.	14	305	495	429	405	453	405	459	440	382	383	431	445	377		304	604	160	253	325	251	287	346	335	301	393	308	442	412	360	203	8.8143	2.9295
15	R-115	SPORTS	15	354	554	550	491	592	530	481	381	418	396	280	311	295	304		643	103	303	437	364	329	408	367	342	469	407	547	409	269	214	8.2788	2.9943
16	R-190	INF.TOT.	16	482	886	817	730	850	811	856	724	653	725	722	659	559	604	643		201	466	591	484	472	639	582	523	702	597	808	671	601	348	145.3164	37.7396
17	R-211	MEM./SENT.	17	112	174	149	103	146	170	185	185	143	140	126	153	174	160	103	201		273	126	130	214	205	200	181	244	144	221	206	199	143	8.6999	2.9773
18	R-212	MEM./WDS.	18	232	415	411	353	409	445	407	337	295	280	272	257	256	253	303	466	273		389	375	306	450	372	340	479	424	437	348	307	198	10.8881	5.1884
19	R-220	DISC.WDS.	19	302	567	535	521	478	504	485	391	402	401	348	342	290	325	437	591	126	389		500	366	506	498	419	590	492	608	517	406	319	14.8295	6.9575
20	R-231	SPELLING	20	290	455	462	408	452	466	401	311	302	282	213	224	244	251	364	484	130	375	500		429	550	470	417	727	456	492	345	192	120	8.9679	2.9666
21	R-232	CAP.	21	366	438	375	341	421	382	367	323	345	294	278	332	307	287	329	472	214	304	366	429		530	481	413	765	347	472	353	303	199	29.0707	3.9715
22	R-233	PUNCT.	22	309	576	529	474	566	625	572	434	445	414	374	347	342	346	408	639	205	450	506	550	530		595	519	858	639	616	474	425	271	16.9041	4.4912
23	R-234	ENG.USAGE	23	338	547	499	450	500	511	482	411	428	380	336	353	331	335	367	582	200	372	498	470	481	595		509	790	480	562	429	362	227	16.3531	3.3720
24	R-235	EF.EXP.	24	271	495	437	388	461	458	433	367	416	343	313	313	270	301	342	523	191	340	419	417	413	519	509		696	423	554	416	341	213	8.4899	2.3742
25	R-230	ENG.TOT.	25	410	651	595	534	624	637	589	480	501	446	396	409	392	395	469	702	244	479	590	727	765	858	790	696		613	696	523	427	272	79.7859	13.3652
26	R-240	WD.FUNCT.	26	216	534	514	449	499	643	527	414	411	397	351	279	268	308	407	597	144	424	492	456	347	633	480	423	613		609	489	406	283	6.6914	5.1301
27	R-250	RD.COMP.	27	392	758	697	605	726	665	678	588	581	584	491	471	434	442	547	808	221	437	608	492	472	616	562	554	696	609		651	530	337	30.6386	10.6928
28	R-260	CREAT.	28	294	608	531	490	525	523	569	492	465	518	520	488	413	412	409	671	206	348	517	345	353	474	429	416	523	489	651		552	345	9.4507	4.1284
29	R-270	MECH.REAS.	29	235	538	386	334	422	491	557	466	415	496	572	548	418	360	269	601	199	307	406	192	303	425	362	341	427	406	530	552		493	12.8146	4.0698
30	R-281	VIS.2 DIM.	30	162	313	230	213	242	320	312	253	244	246	297	286	207	203	214	348	143	198	319	120	199	271	227	213	272	283	337	345	493		14.2479	5.7708
31	R-282	VIS.3 DIM.	31	156	425	322	279	352	431	448	365	338	386	452	405	283	318	408	484	144	245	298	157	246	376	287	285	357	392	434	452	626	481	9.2689	3.3549
32	R-290	ABST.REAS.	32	214	519	426	378	456	535	504	379	422	395	428	358	277	319	362	566	160	325	407	275	337	473	375	393	484	470	555	494	597	419	9.1487	3.0331
33	R-311	I.AR.REAS.	33	284	621	519	457	581	662	603	465	499	446	474	443	369	379	440	685	206	387	440	401	419	597	493	473	622	555	638	510	515	332	9.0658	3.5245
34	R-312	II.INTROD.	34	260	631	571	498	597	832	659	466	475	473	469	361	297	343	482	719	201	436	469	446	405	640	497	458	641	638	633	503	483	331	11.5488	5.4102
35	R-320	MATH.I+II.	35	291	678	596	521	639	827	689	503	524	500	509	425	352	383	504	763	220	451	495	463	444	674	536	501	685	655	687	547	536	359	20.6145	8.2625
36	R-333	III.ADV.	36	210	513	470	420	472	738	552	382	397	416	388	273	219	286	398	599	139	376	397	362	299	516	400	362	506	552	491	418	400	282	4.0000	2.7114
37	R-340	MATH.TOT.	37	287	674	597	525	632	852	692	501	521	507	507	410	337	382	505	764	211	457	498	463	431	670	531	494	678	665	675	545	531	359	24.6145	10.3772
38	F-410	AR.COMP.	38	253	361	314	277	372	410	329	228	282	231	217	223	210	230	350	403	131	257	287	332	326	404	326	304	443	333	398	298	234	202	28.0937	22.0062
39	F-420	TEL.RDG.	39	137	138	128	108	147	137	118	096	108	096	093	136	099	106	168	165	095	082	227	137	165	164	113	145	189	142	176	157	175	236	9.3565	10.7559
40	F-430	CLER.CHK.	40	177	218	229	203	211	237	196	133	149	127	108	114	085	116	247	240	054	169	352	261	202	236	184	182	276	233	261	202	181	275	23.3363	21.3965
41	F-440	OBJ.INSP.	41	131	181	165	156	138	162	155	150	125	152	133	166	117	130	165	202	135	114	265	102	165	153	141	134	182	166	200	235	283	369	21.3883	8.3377
42	R-410	AR.COMP.	42	328	390	357	291	413	492	372	250	285	224	201	222	247	237	417	446	160	327	398	424	389	482	363	313	519	409	409	319	249	244	38.7383	10.6583
43	R-420	TEL.RDG.	43	107	070	078	061	085	101	066	050	051	047	025	055	031	066	137	094	075	054	222	099	092	097	057	068	108	109	093	112	115	217	13.1191	8.4945
44	R-430	CLER.CHK.	44	101	032	082	059	044	095	031	003	002	-014	-039	-042	-020	003	118	046	018	071	278	156	066	074	036	012	090	117	065	049	048	218	37.4957	14.9907
45	R-440	OBJ.INSP.	45	105	133	130	126	097	126	117	122	088	118	099	124	078	102	134	154	113	089	250	069	125	104	091	079	124	131	149	198	252	350	23.0077	7.5214
46	A-410	AR.COMP.	46	256	263	252	191	285	363	261	171	181	136	115	138	179	153	305	308	120	251	322	327	285	354	252	202	376	306	264	214	167	180	42.2865	10.9850
47	A-420	TEL.RDG.	47	032	-029	-006	-012	-012	023	-014	-017	-028	-022	-055	-050	-050	-002	049	-016	025	003	126	020	-020	-011	-023	-038	-018	030	-030	021	006	108	16.8817	10.5736
48	A-430	CLER.CHK.	48	048	-058	-000	-017	-040	014	-050	-056	-064	-075	-099	-104	-063	-048	038	-050	-002	014	193	079	-008	-013	-037	-066	-010	042	-036	-029	-022	152	42.2155	15.8009
49	A-440	OBJ.INSP.	49	064	064	077	078	041	072	061	076	036	066	049	064	027	059	085	083	074	050	204	025	066	037	024	009	046	078	076	135	188	288	24.6272	7.5978
50	A-500	PREF.	50	122	-053	021	-008	-013	-051	-056	-028	-048	-049	-081	-027	002	005	049	-031	062	-021	058	-013	-038	-076	-067	-092	-073	-078	-062	-042	-071	029	59.6002	25.0710
51	R-601	SOCIAB.	51	199	101	084	108	092	069	023	032	082	011	-013	073	051	064	190	098	012	061	170	091	098	064	069	079	102	079	106	096	010	041	6.2675	2.9978
52	R-602	SOC.SENSI.	52	163	185	172	196	154	146	126	129	139	131	102	078	050	099	133	183	-009	095	211	136	101	149	146	104	166	149	165	118	038	057	4.1141	2.3185
53	R-603	IMPULS.	53	097	087	107	105	064	056	046	035	046	080	059	077	035	070	089	095	-039	005	101	022	018	-004	016	-015	010	030	051	058	008	039	1.9381	1.6339
54	R-604	VIGOR	54	183	158	140	137	149	145	115	112	131	070	060	103	115	104	211	173	035	099	163	125	085	105	099	098	131	117	163	133	068	093	3.6983	2.1200
55	R-605	CAUTIOUSS	55	205	248	219	194	222	220	211	197	198	193	185	177	176	144	193	272	063	125	220	155	143	202	167	149	213	202	231	214	161	126	4.2067	2.5398
56	R-606	TIDINESS	56	187	160	149	158	148	147	111	083	105	088	075	089	059	126	144	166	049	136	180	173	125	166	123	119	183	146	151	130	026	067	5.1672	2.7991
57	R-607	CULTURE	57	144	103	128	179	122	108	072	090	063	053	020	016	044	113	096	122	023	090	141	137	087	128	104	077	139	131	110	071	-032	031	4.5822	2.3209
58	R-608	LEADER.	58	074	106	117	157	105	145	086	080	075	067	018	-007	-001	058	150	119	021	095	122	097	030	084	069	072	089	162	111	073	008	054	1.2462	1.3498
59	R-609	SELF-CONF.	59	168	186	162	148	161	164	140	130	137	106	094	131	112	135	160	194	082	110	182	125	114	129	138	141	165	149	187	166	100	084	5.2139	2.4365
60	R-610	MATUR.	60	186	210	191	172	186	245	187	157	158	135	151	126	117	135	147	234	061	143	184	175	119	197	158	126	203	231	191	180	101	115	10.9387	5.2859

*Decimal points omitted.

TABLE 2-7g (continued)*

Var.	Code	Description		R-282	R-290	R-311	R-312	R-320	R-333	R-340	R-410	R-420	R-430	R-440	R-110	R-420	R-430	R-440	A-410	A-420	A-430	A-440	A-500	R-601	R-602	R-603	R-604	R-605	R-606	R-607	R-608	R-609	R-610
				31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	R-101	SCREEN.	1	156	214	284	260	291	210	287	253	137	177	131	328	107	101	105	256	032	048	064	122	199	163	097	183	205	187	144	074	168	186
2	R-102	VOCAB.	2	425	519	621	631	678	513	674	361	138	218	181	390	070	032	133	263	-029	-058	064	-053	101	185	087	158	248	160	103	106	186	210
3	R-103	LIT.	3	322	426	519	571	596	470	597	314	128	229	165	357	078	082	130	252	-006	-000	077	021	084	172	107	140	219	149	128	117	162	191
4	R-104	MUSIC	4	279	378	457	498	521	420	525	277	108	203	156	291	061	059	126	191	-012	-017	078	-008	108	196	105	137	194	158	179	157	148	172
5	R-105	SOC.STUD.	5	352	456	581	597	639	472	632	372	147	211	138	413	085	044	097	285	-012	-040	041	-013	092	154	064	149	222	148	122	105	161	186
6	R-106	MATH.	6	431	535	662	832	827	738	852	410	137	237	162	492	101	095	126	363	023	014	072	-051	069	146	056	145	220	147	108	145	164	245
7	R-107	PHYS.SCI.	7	448	504	603	659	689	552	692	329	118	196	155	372	066	031	117	261	-014	-050	061	-056	023	126	046	115	211	111	072	086	140	187
8	R-108	BIOL.SCI.	8	365	379	465	466	503	382	501	228	096	133	150	250	050	003	122	171	-017	-056	076	-028	032	129	035	112	197	083	090	080	130	157
9	R-109	SCI.ATT.	9	338	422	499	475	524	397	521	282	108	149	125	285	051	002	088	181	-028	-064	036	-048	082	139	046	131	198	105	063	075	137	158
10	R-110	AERO.-SP.	10	386	395	446	473	500	416	507	231	096	127	152	224	047	-014	118	136	-022	-075	066	-049	011	131	080	070	193	088	053	067	106	135
11	R-111	ELEC.	11	452	428	474	469	509	388	507	217	093	108	133	201	025	-039	099	115	-055	-099	049	-081	-013	102	059	060	185	075	020	018	094	151
12	R-112	MECH.	12	405	358	443	361	425	273	410	223	136	114	166	222	055	-042	124	138	-050	-104	064	-027	073	078	077	103	177	089	016	-007	131	126
13	R-113	FARM.	13	283	277	369	297	352	219	337	210	099	085	117	247	031	-020	078	179	-050	-063	027	002	051	050	035	115	176	059	044	-001	112	117
14	R-114	HOME EC.	14	318	319	379	343	386	286	382	230	106	116	130	237	066	003	102	153	-002	-048	059	005	064	099	078	104	144	126	113	058	135	135
15	R-115	SPORTS	15	208	362	440	482	504	398	505	350	168	247	165	417	137	118	134	305	049	038	085	049	190	133	089	211	193	144	096	150	160	147
16	R-190	INF.TOT.	16	484	566	685	719	763	599	764	403	165	240	202	446	094	046	154	308	-016	-050	083	-031	098	183	095	173	272	166	122	119	194	234
17	R-211	MEM./SEN.	17	144	160	206	201	220	139	211	131	095	054	135	160	075	018	113	120	025	-002	074	062	012	-009	-039	035	063	049	023	021	082	061
18	R-212	MEM./WDS.	18	245	325	387	436	451	376	457	257	082	169	114	327	054	071	089	251	003	014	050	-021	061	095	005	099	125	136	090	095	110	143
19	R-220	DISG.WDS.	19	298	407	440	469	495	397	498	287	227	352	265	398	222	278	250	322	126	193	204	058	170	211	101	163	220	180	141	122	182	184
20	R-231	SPELLING	20	157	275	401	446	463	362	463	332	137	261	102	424	099	156	069	327	020	079	025	-013	091	136	022	125	155	173	137	097	125	175
21	R-232	CAP.	21	246	337	419	405	444	299	431	326	165	202	165	389	092	066	125	285	-020	-008	066	-038	098	101	018	085	143	125	087	030	114	119
22	R-233	FUNCT.	22	376	473	597	640	674	510	670	404	164	236	153	482	097	074	104	354	-011	-013	037	-078	064	149	-004	105	202	166	128	084	129	197
23	R-234	ENG.USAGE	23	287	375	493	497	536	400	531	326	113	184	141	363	057	036	091	252	-023	-037	024	-067	069	146	016	099	167	123	104	069	138	158
24	R-235	EF.EXP.	24	285	393	473	458	501	362	494	304	145	182	134	313	068	012	079	202	-038	-066	009	-092	079	104	-015	098	149	119	077	072	141	126
25	R-230	ENG.TOT.	25	357	484	622	641	685	506	678	443	189	276	182	519	108	090	124	376	-018	-010	046	-073	102	166	010	131	213	183	139	089	165	203
26	R-240	WD.FUNCT.	26	392	470	555	638	655	552	665	333	142	233	166	409	109	117	131	306	030	042	078	-078	079	149	030	117	202	146	131	162	149	231
27	R-250	RD.COMP.	27	434	555	638	633	687	491	675	398	176	261	200	409	093	065	149	264	-030	-036	076	-062	106	165	051	163	231	151	110	111	187	191
28	R-260	CREAT.	28	452	494	510	503	547	418	545	298	157	202	235	319	112	049	198	214	021	-029	135	-042	096	118	058	133	214	130	071	073	166	180
29	R-270	MEM.REAS.	29	626	597	515	483	536	400	531	234	175	181	283	249	115	048	252	167	006	-022	188	-071	010	038	008	068	161	026	-032	008	100	101
30	R-281	VIS.2 DIM.	30	481	419	332	331	359	282	359	202	236	275	369	244	217	218	350	180	108	152	288	029	041	057	039	093	126	067	031	054	084	115
31	R-282	VIS.3 DIM.	31		557	444	446	481	379	482	230	161	163	289	237	103	046	254	153	003	-015	185	-106	-018	043	-010	033	145	045	017	008	085	116
32	R-290	ABST.REAS.	32	557		526	547	582	431	576	333	184	233	286	332	102	057	239	206	-023	-033	159	-091	044	077	-021	092	146	085	031	040	086	109
33	R-311	I.AR.REAS.	33	444	526		697	883	554	848	431	170	208	158	484	109	035	102	338	002	-050	029	-077	057	095	027	110	199	094	026	083	132	187
34	R-312	II.INEROD.	34	446	547	697		952	732	949	443	170	238	171	539	124	087	132	402	027	003	073	-071	061	131	045	127	218	133	093	135	143	230
35	R-320	MATH.I+II.	35	481	582	883	952		716	983	474	184	244	179	560	128	072	130	407	019	-019	060	-080	064	126	041	130	228	127	072	124	150	231
36	R-333	III.ADV.	36	379	431	554	732	716		831	317	103	187	149	422	091	088	123	334	041	027	080	-055	056	119	038	122	201	108	085	150	138	221
37	R-340	MATH.TOT.	37	482	576	848	949	983	831		460	173	243	182	556	125	080	136	412	026	-008	069	-078	066	132	042	136	234	130	079	138	156	241
38	F-410	AR.COMP.	38	230	333	431	443	474	317	460		247	293	182	648	095	055	084	170	-098	-063	-033	-079	110	071	014	115	126	117	066	042	128	141
39	F-420	THL.RDG.	39	161	184	170	170	184	103	173	247		409	386	253	800	324	351	163	269	225	271	146	133	073	053	085	114	113	079	052	085	095
40	F-430	CLER.CHK.	40	163	233	208	238	244	187	243	293	409		375	332	392	704	351	234	215	439	283	141	130	121	051	131	148	127	111	086	105	133
41	F-440	OBJ.INSP.	41	289	286	158	171	179	149	182	182	386	375		240	384	349	949	189	225	273	782	176	127	085	062	107	137	096	068	072	100	102
42	R-410	AR.COMP.	42	237	332	484	539	560	422	556	648	253	332	240		299	295	234	861	222	224	199	108	197	162	088	196	219	202	145	133	172	246
43	R-420	THL.RDG.	43	103	102	109	124	128	091	125	095	800	392	384	299		492	435	323	793	445	439	279	146	086	093	100	125	114	084	092	091	112
44	R-430	CLER.CHK.	44	046	057	035	087	072	088	080	055	324	704	349	295	492		426	345	461	947	460	313	151	127	115	140	136	123	132	131	102	164
45	R-440	OBJ.INSP.	45	254	239	102	132	130	123	136	084	351	351	949	234	435	426		246	341	381	938	246	134	091	078	112	135	098	077	084	102	113
46	A-410	AR.COMP.	46	153	206	338	402	407	334	412	170	163	234	189	861	323	345	246		353	331	280	192	181	162	104	177	200	183	143	144	137	225
47	A-420	THL.RDG.	47	003	-023	002	027	019	041	026	-098	269	215	225	222	793	461	341	353		486	429	300	099	064	097	073	085	067	054	094	060	084
48	A-430	CLER.CHK.	48	-015	-033	-050	003	-019	027	-008	-063	225	439	273	224	445	947	381	331	486		454	333	133	106	123	118	105	098	117	128	082	147
49	A-440	OBJ.INSP.	49	185	159	029	073	060	080	069	-033	271	283	782	199	439	460	938	280	429	454		294	127	086	087	104	118	088	077	087	092	112
50	A-500	PREF.	50	-106	-091	-077	-071	-080	-055	-078	-079	146	141	176	108	279	313	246	192	300	333	294		172	102	214	146	134	118	132	130	090	148
51	R-601	SOCIAB.	51	-018	044	057	061	064	056	066	110	133	130	127	197	146	151	134	181	099	133	127	172		511	257	526	441	444	450	383	380	426
52	R-602	SOC.SENSI.	52	043	077	095	131	126	119	132	071	073	121	085	162	086	127	091	162	064	106	086	102	511		255	459	549	508	591	447	308	567
53	R-603	IMPULS.	53	-010	-021	027	045	041	038	042	014	053	051	062	088	093	115	078	104	097	123	087	214	257	255		259	179	134	197	265	129	207
54	R-604	VIGOR	54	033	092	110	127	130	122	136	115	085	131	107	196	100	140	112	177	073	118	104	146	526	459	259		463	470	444	400	331	566
55	R-605	CAUGNESS	55	145	146	199	218	228	201	234	126	114	148	137	219	125	136	135	200	085	105	118	134	441	549	179	463		517	501	405	447	597
56	R-606	TIDINESS	56	045	085	094	133	127	108	130	117	113	127	096	202	114	123	098	183	067	098	088	118	444	508	134	470	517		576	366	313	621
57	R-607	CULTURE	57	017	031	026	093	072	085	079	066	079	111	068	145	084	132	077	143	054	117	077	132	450	591	197	444	501	576		438	335	555
58	R-608	LEADER.	58	008	040	083	135	124	150	138	042	052	086	072	133	092	131	084	144	094	128	087	130	383	447	265	400	405	366	438		315	483
59	R-609	SELF-CONF.	59	065	086	132	143	150	138	156	128	085	105	100	172	091	102	102	137	060	082	092	090	380	308	129	331	447	313	335	315		433
60	R-610	MATUR.	60	116	109	187	230	231	221	241	141	095	133	102	246	112	164	113	225	084	147	112	148	426	567	207	566	597	621	555	483	433	

INFO. PART I — ENGLISH — MATH — FORMULA — R'S. — ATT. — S.A.I.

*Decimal points omitted.

TABLE 2-7h

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-11 Girls, Subsample 0 (N=3557)

Var.	Code	Description		R-101 SCREEN.	R-102 VOCAB.	R-103 LIT.	R-104 MUSIC	R-105 SOC.STUD.	R-106 MATH	R-107 PHYS.SCI.	R-108 BIOL.SCI.	R-109 SCI.ATT.	R-110 AERO.-SP.	R-111 ELEC.	R-112 MECH.	R-113 FARM.	R-114 HOME EC.	R-115 SPORTS	R-190 INF.TOT.	R-211 MEM./SENT.	R-212 MEM./WDS.	R-220 DISC.WDS.	R-231 SPELLING	R-232 CAP.	R-233 PUNCT.	R-234 ENG.USAGE	R-235 EF.EXP.	R-230 ENG.TOT.	R-240 WD.FUNCT.	R-250 RD.COMP.	R-260 CREAT.	R-270 MECH.REAS.	R-281 VIS.2DIM.	MEAN	S.D.
1	R-101	SCREEN.	1		291	283	283	336	205	249	236	266	122	199	252	289	313	238	380	105	211	269	224	255	272	224	205	316	214	315	230	195	184	11.6475	.8746
2	R-102	VOCAB.	2	291		720	677	719	641	686	594	560	442	453	525	548	480	550	874	270	475	532	440	403	622	520	480	661	579	748	583	503	315	11.7824	4.0902
3	R-103	LIT.	3	283	720		669	713	602	616	527	498	407	394	408	458	395	497	817	210	441	497	409	344	549	455	417	583	523	699	522	426	249	12.5943	4.3829
4	R-104	MUSIC	4	283	677	669		642	538	557	465	459	393	354	375	407	386	501	753	185	416	485	389	321	519	438	412	555	481	626	477	410	238	6.5342	2.9565
5	R-105	SOC.STUD.	5	336	719	713	642		602	666	571	506	389	422	458	525	466	540	852	231	458	468	438	381	587	473	438	622	558	715	502	417	256	14.1456	5.1069
6	R-106	MATH.	6	205	641	602	538	602		661	493	439	357	427	387	388	343	435	768	244	445	427	404	300	569	433	360	561	617	578	460	443	274	7.8482	5.1023
7	R-107	PHYS.SCI.	7	249	686	616	557	666	661		567	466	426	536	484	484	424	475	819	242	440	411	348	321	547	411	376	543	548	613	504	478	275	6.9829	3.7176
8	R-108	BIOL.SCI.	8	236	594	527	465	571	493	567		429	329	353	425	501	419	378	694	206	381	361	294	262	452	341	316	451	464	557	430	391	219	5.7388	2.2079
9	R-109	SCI.ATT.	9	266	560	498	459	506	439	466	429		294	303	362	404	379	387	630	192	351	391	301	327	465	403	387	503	439	572	434	396	279	6.0652	1.8875
10	R-110	AERO.-SP.	10	122	442	407	393	389	357	426	329	294		373	355	283	253	367	530	131	246	267	174	170	274	242	222	290	291	385	341	351	193	2.6224	1.6868
11	R-111	ELEC.	11	199	453	394	354	422	427	534	353	303	373		433	332	299	350	590	148	258	254	188	190	308	248	225	313	329	385	360	339	185	5.5063	2.6290
12	R-112	MECH.	12	252	525	408	375	458	387	484	425	362	355	433		526	450	414	644	188	287	313	236	258	377	296	273	389	329	446	433	421	266	7.9528	2.9343
13	R-113	FARM.	13	289	548	458	407	525	388	484	501	404	283	312	526		477	426	660	234	344	336	304	308	464	339	315	469	407	520	431	394	246	7.3390	2.4805
14	R-114	HOME EC.	14	313	480	395	386	466	343	424	419	379	253	299	450	477		358	610	161	276	314	259	265	406	318	317	420	341	437	410	382	248	12.8842	3.2698
15	R-115	SPORTS	15	238	550	497	501	540	435	475	378	387	367	350	414	426	358		656	146	308	345	283	266	391	321	309	420	367	482	419	361	255	5.5330	2.4548
16	R-190	INF.TOT.	16	380	874	817	753	852	768	819	694	630	530	590	644	660	610	656		283	525	552	466	421	671	536	493	696	645	789	632	568	349	125.1760	33.3270
17	R-211	MEM./SEN.	17	105	270	210	185	231	244	242	206	192	131	148	188	234	161	146	283		374	222	171	231	299	233	210	310	245	294	234	211	177	9.3362	3.0879
18	R-212	MEM./WDS.	18	211	475	441	416	458	445	440	381	351	246	258	287	344	276	308	525	374		404	376	324	487	366	319	506	471	496	382	334	239	12.6995	5.5654
19	R-220	DISC.WDS.	19	269	532	497	485	468	427	411	361	391	267	254	313	336	316	345	552	222	404		500	336	536	478	393	598	483	586	473	394	316	16.2480	7.1463
20	R-231	SPELLING	20	224	440	409	389	438	404	348	294	301	174	188	236	304	259	283	466	171	376	500		363	552	459	343	713	454	469	325	215	170	10.3759	2.6893
21	R-232	CAP.	21	255	403	344	321	381	300	321	262	327	170	190	258	308	265	266	421	231	324	336	363		509	439	374	722	337	421	283	261	212	30.1645	3.1311
22	R-233	PUNCT.	22	272	622	549	519	587	569	547	452	465	274	308	377	464	406	391	671	299	487	536	552	509		566	499	870	639	646	468	444	320	18.7816	4.2929
23	R-234	ENG.USAGE	23	224	520	455	420	473	433	411	341	403	242	248	296	339	318	321	536	233	366	478	459	439	566		450	176	453	523	388	329	222	17.2721	3.0789
24	R-235	EF.EXP.	24	205	480	417	412	438	360	37[illegible]	316	387	222	225	273	315	317	309	493	210	319	393	343	374	499	450		659	415	520	381	322	216	9.0717	2.0619
25	R-230	ENG.TOT.	25	316	661	583	555	622	561	543	451	503	290	313	389	469	420	420	696	310	506	598	713	722	870	776	659		624	689	493	427	311	85.6657	11.6589
26	R-240	WD.FUNCT.	26	214	579	523	481	558	617	548	464	439	291	329	329	407	341	367	645	245	471	483	454	337	639	453	415	624		631	497	447	309	10.9710	5.4999
27	R-250	RD.COMP.	27	315	748	699	626	715	578	613	557	572	385	385	446	520	437	482	789	294	496	586	469	421	646	523	520	689	631		618	521	340	30.9921	9.9080
28	R-260	CREAT.	28	230	583	522	477	502	460	504	430	434	341	360	433	431	410	419	632	234	382	473	325	283	468	388	381	493	497	618		503	352	8.4434	3.7825
29	R-270	MECH.REAS.	29	195	503	426	410	417	443	478	391	396	351	339	421	394	382	361	568	211	334	394	215	261	444	329	322	427	447	521	503		463	8.5471	3.5213
30	R-281	VIS.2 DIM.	30	184	315	249	238	256	274	275	219	279	193	185	266	246	248	255	349	177	239	316	170	212	320	222	216	311	309	340	352	463		11.5603	5.6261
31	R-282	VIS.3 DIM.	31	133	418	357	336	368	415	423	334	343	251	272	323	327	335	280	481	202	310	316	196	243	406	290	286	387	429	465	442	574	440	8.0455	3.0411
32	R-290	ABST.REAS.	32	223	514	409	441	472	454	456	375	435	258	256	326	342	356	347	559	229	381	459	307	372	530	388	398	539	505	591	484	521	385	8.6860	3.0417
33	R-311	I.AR.REAS.	33	247	626	545	491	601	607	568	460	503	279	354	422	438	433	413	691	279	438	453	426	384	615	463	434	627	602	647	527	475	327	8.0160	3.5161
34	R-312	II.INTROD.	34	232	596	549	488	574	789	612	451	443	316	388	377	400	361	421	703	240	430	411	424	347	596	433	378	592	618	578	472	456	313	10.0020	4.5881
35	R-320	MATH.I+II.	35	263	672	604	540	646	783	654	502	517	331	411	437	459	433	460	769	283	478	473	468	400	667	492	444	669	674	671	547	512	352	18.0180	7.3478
36	R-333	III.ADV.	36	135	433	398	359	404	641	472	314	327	262	311	254	257	231	303	517	162	309	277	251	197	385	297	247	374	432	370	353	338	202	3.0197	2.1997
37	R-340	MATH.TOT.	37	253	667	602	539	639	812	663	496	512	341	420	428	446	418	459	770	276	475	463	452	382	651	484	431	651	669	651	543	510	343	21.0380	8.8245
38	F-410	AR.COMP.	38	255	376	314	297	384	378	338	254	309	146	203	278	317	289	282	430	173	302	346	401	362	463	324	305	500	389	407	313	258	232	31.2021	18.1317
39	F-420	TEL.RDG.	39	165	119	099	101	108	077	077	033	089	044	058	094	099	096	099	124	122	087	243	115	166	162	104	095	175	122	165	168	145	231	10.4942	7.9503
40	F-430	CLER.CHK.	40	132	165	161	147	145	154	117	100	125	064	089	074	093	091	147	174	095	161	313	209	136	203	130	107	213	185	205	171	179	235	28.8895	19.5855
41	F-440	OBJ.INSP.	41	173	199	155	182	137	142	146	144	181	109	101	143	149	141	159	207	129	142	310	124	170	202	167	150	219	186	258	260	295	315	22.2823	7.7287
42	R-410	AR.COMP.	42	315	390	322	307	403	441	371	266	312	167	260	301	347	295	304	465	222	334	407	433	364	484	330	290	514	430	401	342	290	285	39.7939	10.7894
43	R-420	TEL.RDG.	43	142	087	069	077	076	081	052	004	063	049	060	066	060	066	086	094	121	088	251	108	113	120	068	050	126	107	123	150	126	233	13.3922	6.9176
44	R-430	CLER.CHK.	44	054	-009	014	007	-019	034	-036	-027	-028	-007	015	-048	-043	-044	023	-011	055	041	240	093	004	018	-004	-045	020	046	021	047	064	180	40.6677	14.3024
45	R-440	OBJ.INSP.	45	145	152	117	150	096	114	110	112	131	095	090	107	112	099	137	160	108	112	289	088	116	142	112	094	150	152	206	232	275	312	23.7959	6.9016
46	A-410	AR.COMP.	46	289	322	263	252	335	391	317	221	253	147	242	255	297	241	257	393	207	286	363	367	293	401	268	224	421	369	319	292	252	260	42.6579	10.3880
47	A-420	TEL.RDG.	47	084	033	021	033	025	064	014	-028	021	043	047	021	005	019	050	040	089	068	197	075	031	048	015	-008	046	064	050	094	076	178	16.2901	7.8206
48	A-430	CLER.CHK.	48	012	-084	-053	-056	-089	-024	-098	-080	-092	-038	-019	-095	-097	-097	-036	-092	030	-018	173	028	-056	-067	-063	-106	-069	-022	-064	-014	004	129	44.5938	14.7080
49	A-440	OBJ.INSP.	49	097	082	060	097	038	070	056	063	059	070	067	054	057	039	097	088	072	065	232	037	043	059	036	020	055	096	123	175	221	271	25.3095	6.8684
50	A-500	PREF.	50	148	-015	018	-017	-010	-039	-028	-024	-035	014	046	033	030	-010	040	000	022	-023	097	-001	002	-049	-025	-078	-038	-065	-055	008	-041	070	59.3292	22.0695
51	R-601	SOCIAB.	51	183	047	049	100	028	022	-026	024	079	-005	012	031	034	068	092	056	018	041	167	091	049	060	044	060	079	049	048	068	033	075	7.2955	2.8580
52	R-602	SOC.SENSI.	52	180	218	205	219	188	171	126	147	184	102	097	073	099	126	129	216	058	117	218	162	135	159	172	159	206	159	199	155	088	067	5.3795	2.2967
53	R-603	IMPULS.	53	067	140	160	110	108	091	090	100	110	093	063	095	076	071	109	142	-020	033	115	045	003	055	070	028	055	042	108	098	096	082	2.0593	1.7049
54	R-604	VIGOR	54	127	144	115	164	117	135	084	106	104	047	071	117	125	091	171	161	037	061	152	103	064	103	083	085	116	107	103	118	117	087	3.7152	2.1995
55	R-605	CALMNESS	55	160	163	153	164	160	172	104	108	147	061	090	090	110	112	124	183	047	089	164	122	108	130	139	112	162	135	139	136	093	093	4.5909	2.5871
56	R-606	TIDINESS	56	167	115	089	136	106	098	046	049	088	014	065	054	066	082	066	115	044	053	149	156	095	126	124	070	153	115	085	075	003	059	6.4062	2.7564
57	R-607	CULTURE	57	165	200	208	238	197	212	146	156	151	092	127	074	115	103	145	226	055	111	181	164	102	171	169	115	193	173	172	133	065	063	5.8996	2.1983
58	R-608	LEADER.	58	023	035	093	131	086	148	053	084	055	050	042	014	022	011	099	102	027	043	087	069	018	076	067	033	072	110	060	057	027	033	1.3368	1.3776
59	R-609	SELF-CONF.	59	097	120	126	114	105	139	081	105	122	070	083	095	083	076	095	143	057	066	127	104	080	110	105	082	129	107	122	121	083	093	5.2702	2.5544
60	R-610	MATUR.	60	162	250	227	224	236	293	197	179	168	116	188	150	160	151	175	283	072	126	216	228	122	234	202	128	247	247	209	183	106	108	11.9002	5.1317

*Decimal points omitted.

TABLE 2-7h (continued)*

Var.		Code	Description		R-282 VIS.3 DIM. 31	R-290 ABST.REAS. 32	R-311 I.AR.REAS. 33	R-312 II.INTROD. 34	R-320 MATH.I+II. 35	R-333 III.ADV. 36	R-340 MATH.TOT. 37	F-410 AR.COMP. 38	F-420 TEL.RDG. 39	F-430 CLER.CHK. 40	F-440 OBJ.INSP. 41	R-410 AR.COMP. 42	R-420 TEL.RDG. 43	R-430 CLER.CHK. 44	R-440 OBJ.INSP. 45	A-410 AR.COMP. 46	A-420 TEL.RDG. 47	A-430 CLER.CHK. 48	A-440 OBJ.INSP. 49	A-500 PREF. 50	R-601 SOCIAB. 51	R-602 SOC.SENSI. 52	R-603 IMPULS. 53	R-604 VIGOR 54	R-605 CALMNESS 55	R-606 TIDINESS 56	R-607 CULTURE 57	R-608 LEADER. 58	R-609 SELF-CONF. 59	R-610 MATUR. 60
1	INFO.PART I	R-101	SCREEN.	1	133	223	247	232	263	135	253	255	165	132	173	315	142	054	145	289	084	012	097	148	183	180	067	127	160	167	165	023	097	162
2		R-102	VOCAB.	2	418	514	626	596	672	433	667	376	119	165	199	390	087	-009	152	322	033	-084	082	-015	047	218	140	144	163	115	200	085	120	250
3		R-103	LIT.	3	357	459	545	549	604	398	602	314	099	161	155	322	069	014	117	263	021	-053	060	018	049	205	160	115	153	089	208	093	126	227
4		R-104	MUSIC	4	336	441	491	488	540	359	539	297	101	147	182	307	077	007	150	252	033	-056	097	-017	100	219	110	164	164	136	238	131	114	224
5		R-105	SOC.STUD.	5	368	472	601	574	646	404	639	384	108	145	137	403	076	-019	096	335	025	-089	038	-010	028	188	108	117	160	106	197	086	105	236
6		R-106	MATH.	6	415	454	607	789	783	641	812	378	077	154	142	441	081	034	114	391	064	-024	070	-039	022	171	091	135	172	098	212	148	139	293
7		R-107	PHYS.SCI.	7	423	456	568	612	654	472	663	338	077	117	146	371	052	-036	110	317	014	-098	056	-028	-026	126	090	084	104	046	146	053	081	197
8		R-108	BIOL.SCI.	8	334	375	460	451	502	314	496	254	033	100	144	266	004	-027	112	221	-028	-080	063	-024	024	147	100	106	108	049	156	084	105	179
9		R-109	SCI.ATT.	9	343	435	503	443	517	327	512	309	089	125	181	312	063	-028	131	253	021	-092	059	-035	079	184	110	104	147	088	151	055	122	168
10		R-110	AERO.-SP.	10	251	258	279	316	331	262	341	146	044	064	109	167	049	-007	095	147	043	-038	070	014	-005	102	093	047	061	014	092	050	070	116
11		R-111	ELEC.	11	272	256	354	388	411	311	420	203	058	089	101	260	060	015	090	242	047	-019	067	046	012	097	063	071	090	065	127	042	083	188
12		R-112	MECH.	12	323	326	422	377	437	254	428	278	094	074	143	301	066	-048	107	255	021	-095	054	033	031	073	095	117	090	054	074	014	095	150
13		R-113	FARM.	13	327	342	438	400	459	257	446	317	099	093	149	347	060	-043	112	297	005	-097	057	030	034	098	076	125	110	066	115	022	083	160
14		R-114	HOME EC.	14	335	356	433	361	433	231	418	289	096	091	141	295	066	-044	099	241	019	-097	039	-010	068	126	071	091	112	082	103	011	076	151
15		R-115	SPORTS	15	280	347	413	421	460	303	459	282	099	147	159	304	086	023	137	257	050	-036	097	040	092	129	109	171	124	066	145	099	095	175
16		R-190	INF.TOT.	16	481	559	691	705	769	517	770	430	124	174	207	465	094	-011	160	393	040	-092	088	000	056	216	142	181	183	115	226	102	143	283
17		R-211	MEM./SEN.	17	202	229	279	240	283	162	276	173	122	095	129	222	121	055	108	207	089	030	072	022	018	058	-020	037	047	044	055	027	057	072
18		R-212	MEM./WDS.	18	310	381	438	430	478	309	475	302	087	161	142	334	088	041	112	286	068	-018	065	-023	041	117	033	061	089	053	111	043	066	126
19		R-220	DISG./WDS.	19	316	459	453	411	473	277	463	346	243	313	310	407	251	240	289	383	197	173	232	097	167	218	115	152	162	149	131	087	127	216
20	ENGLISH	R-231	SPELLING	20	196	307	426	424	468	251	452	401	115	209	124	433	108	093	088	367	075	028	037	-001	091	162	045	103	122	156	164	069	104	228
21		R-232	CAP.	21	243	372	384	347	400	197	382	362	166	136	170	364	113	004	116	293	031	-056	043	002	049	135	003	064	108	095	102	018	080	122
22		R-233	FUNCT.	22	406	530	615	596	667	385	651	463	162	203	202	484	120	018	142	401	048	-067	059	-049	060	159	055	103	130	126	171	076	110	234
23		R-234	ENG.USAGE	23	290	388	463	433	492	297	484	324	104	130	167	330	068	-004	112	268	015	-063	036	-025	044	172	070	083	139	124	169	067	105	202
24		R-235	EF.EXP.	24	286	398	484	378	444	247	431	303	095	107	150	290	050	-045	094	224	-008	-106	020	-078	060	159	028	085	112	070	115	033	082	128
25		R-230	ENG.TOT.	25	387	539	627	592	669	374	651	500	175	213	219	514	126	020	150	421	046	-069	055	-038	079	206	055	116	162	153	193	072	129	247
26		R-240	WD.FUNCT.	26	429	505	602	618	674	432	669	389	122	185	186	430	107	046	152	369	064	-022	096	-065	049	159	042	107	135	115	173	110	107	247
27		R-250	RD.COMP.	27	465	591	647	578	671	370	651	407	165	205	258	401	123	021	206	319	050	-064	123	-055	048	199	108	103	139	085	172	060	122	209
28		R-260	CREAT.	28	442	484	527	472	547	353	543	313	168	171	260	342	150	047	232	292	094	-014	175	008	068	155	098	118	136	075	133	057	121	183
29		R-270	MECH.REAS.	29	574	521	475	456	512	338	510	258	145	179	295	290	126	054	275	252	076	004	221	-041	033	088	096	117	093	003	065	027	083	106
30		R-281	VIS.2 DIM.	30	440	385	327	313	352	202	343	232	231	235	315	285	233	180	312	260	178	129	271	070	075	067	082	087	093	059	065	033	093	108
31		R-282	VIS.3 DIM.	31		516	452	439	490	320	488	249	129	159	283	249	106	060	258	200	056	008	201	-087	-015	047	036	045	054	-004	050	002	050	085
32		R-290	ABST.REAS.	32	516		532	482	556	316	541	353	172	221	306	334	127	065	259	258	049	-013	176	-081	039	108	051	089	089	060	089	039	073	135
33	MATH	R-311	I.AR.REAS.	33	452	532		638	877	446	841	431	119	177	178	452	091	008	132	376	040	-068	065	-041	055	170	085	106	132	075	128	063	101	214
34		R-312	II.INTROD.	34	439	482	638		930	601	924	456	106	174	156	513	105	036	122	444	078	-030	069	-043	032	143	078	115	165	099	180	116	128	266
35		R-320	MATH.I+II.	35	490	556	877	930		589	980	491	123	193	183	537	109	027	139	457	068	-051	074	-047	047	171	089	123	166	098	173	102	128	269
36		R-333	III.ADV.	36	320	316	446	601	589		740	272	033	116	109	321	060	040	097	287	074	001	071	-015	018	120	064	100	142	063	153	097	104	207
37	FORMULA	R-340	MATH.TOT.	37	488	541	841	924	980	740		476	111	190	180	527	106	032	140	452	075	-043	080	-043	043	172	091	127	174	097	183	109	133	275
38		F-410	AR.COMP.	38	249	353	431	456	491	272	476		209	226	183	780	175	039	110	498	098	-050	016	026	084	097	006	110	118	138	122	028	102	200
39		F-420	TEL.RDG.	39	129	172	119	106	123	033	111	209		355	401	241	879	342	404	212	539	286	361	185	112	048	051	066	077	077	057	038	071	083
40		F-430	CLER.CHK.	40	159	221	177	174	193	116	190	226	355		327	271	380	763	330	244	311	545	295	141	099	067	047	074	071	081	070	079	090	117
41		F-440	OBJ.INSP.	41	283	306	178	156	183	109	180	183	401	327		236	405	335	952	221	308	290	788	177	126	087	058	112	085	102	093	066	093	106
42		R-410	AR.COMP.	42	249	334	452	513	537	321	527	780	241	271	236		300	177	224	931	285	110	183	154	155	147	057	134	177	189	178	115	156	287
43		R-420	TEL.RDG.	43	106	127	091	105	109	060	106	175	879	380	405	300		453	452	313	875	419	453	282	123	058	071	084	097	096	073	081	088	114
44		R-430	CLER.CHK.	44	060	065	008	036	027	040	032	039	342	763	335	177	453		404	223	453	958	434	269	123	062	067	088	065	081	073	123	087	123
45		R-440	OBJ.INSP.	45	258	259	132	122	139	097	140	110	404	330	952	224	452	404		245	388	377	939	242	136	087	081	125	089	105	099	090	105	112
46		A-410	AR.COMP.	46	200	258	376	444	457	287	452	498	212	244	221	931	313	223	245		338	181	245	198	166	148	076	191	177	182	175	143	157	282
47	ATT.	A-420	TEL.RDG.	47	056	049	040	078	068	074	075	098	539	311	308	285	875	453	388	338		450	434	310	104	055	074	082	092	092	071	105	084	117
48		A-430	CLER.CHK.	48	008	-013	-068	-030	-051	001	-043	-050	286	545	290	110	419	958	377	181	450		432	287	115	051	067	081	052	070	064	124	073	108
49		A-440	OBJ.INSP.	49	201	176	065	069	074	071	080	010	361	295	788	183	453	434	939	245	434	432		287	132	078	097	124	084	096	095	106	107	105
50		A-500	PREF.	50	-087	-081	-041	-043	-047	-015	-043	026	185	141	177	154	282	269	242	198	310	287	287		182	124	164	122	144	109	126	119	137	159
51		R-601	SOCIAB.	51	-015	039	055	032	047	018	043	084	112	099	126	155	123	123	136	166	104	115	132	182		477	196	491	386	376	387	337	388	354
52		R-602	SOC.SENSI.	52	047	108	170	143	171	120	172	097	048	067	087	147	058	062	087	148	055	051	078	124	477		176	381	572	484	569	381	265	562
53		R-603	IMPULS.	53	036	051	085	078	089	066	091	006	051	047	058	057	071	067	081	076	074	067	097	164	196	176		219	075	020	151	204	120	130
54		R-604	VIGOR	54	045	089	106	115	123	100	127	110	066	074	112	184	084	088	125	191	082	081	124	122	491	381	219		365	365	419	410	323	469
55		R-605	CALMNESS	55	054	089	132	165	166	142	174	118	077	071	085	177	097	065	089	177	092	052	084	144	386	572	075	385		511	535	374	418	581
56	S.A.I.	R-606	TIDINESS	56	-004	060	075	099	098	063	097	108	077	081	102	189	096	081	105	182	092	070	096	109	376	484	020	365	511		569	315	256	612
57		R-607	CULTURE	57	050	089	128	180	173	153	183	122	057	070	093	178	073	073	099	175	071	064	095	126	387	569	151	419	535	569		400	301	592
58		R-608	LEADER.	58	002	039	063	116	102	097	109	028	038	079	066	115	081	123	090	143	105	124	106	119	337	381	204	410	374	315	400		335	463
59		R-609	SELF-CONF.	59	050	073	101	128	128	104	133	102	071	090	093	156	088	087	105	157	084	073	107	137	388	265	120	323	418	256	301	335		366
60		R-610	MATUR.	60	085	135	214	266	269	207	275	200	083	117	106	287	114	123	112	282	117	108	105	159	354	562	130	469	581	612	592	463	366	

*Decimal points omitted.

TABLE 2-7i

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-11 Students, Subsample 0 (N=7176)

Var.	Code	Description		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	MEAN	S.D.
1	R-101	SCREEN.	1		328	319	298	371	229	249	244	294	141	171	197	297	302	235	396	116	230	290	277	336	303	301	254	383	219	358	252	144	141	11.5426	1.0921
2	R-102	VOCAB.	2	328		715	633	737	681	717	622	564	562	541	536	533	301	564	880	199	403	519	383	380	537	494	451	584	522	737	603	534	342	12.5315	4.0977
3	R-103	LIT.	3	319	715		663	718	613	613	543	506	463	393	348	416	316	491	798	173	412	508	412	348	516	466	417	562	508	656	528	375	244	12.8113	4.4619
4	R-104	MUSIC	4	298	633	663		597	516	503	443	449	360	294	231	329	380	397	683	152	393	508	408	339	502	451	405	547	471	613	466	274	197	6.2517	2.9894
5	R-105	SOC.STUD.	5	371	737	718	597		643	696	605	515	510	478	464	502	275	581	854	165	389	444	390	362	515	448	414	553	493	705	525	450	281	15.1342	5.2838
6	R-106	MATH.	6	229	681	613	516	643		717	528	460	367	529	449	376	176	531	805	173	386	429	359	301	522	427	372	520	578	605	507	513	336	9.1774	5.7102
7	R-107	PHYS.SCI.	7	249	717	613	503	696	717		626	469	611	663	572	478	169	550	852	165	339	390	268	276	451	376	341	450	464	608	548	590	346	8.3442	4.1623
8	R-108	BIOL.SCI.	8	244	622	543	443	605	528	626		435	475	480	476	503	238	423	724	169	312	345	238	255	381	338	307	397	402	557	476	469	273	6.2127	2.2869
9	R-109	SCI.ATT.	9	294	564	506	449	515	460	469	435		340	324	325	381	308	368	622	165	316	393	289	329	441	410	396	484	420	576	449	362	257	6.0969	1.9094
10	R-110	AERO.-SP.	10	141	562	463	360	510	507	611	475	340		637	585	357	-019	513	678	069	150	253	093	148	210	219	200	226	247	436	450	567	298	3.7205	2.3420
11	R-111	ELEC.	11	171	541	393	294	478	529	663	480	324	637		673	386	-015	458	691	060	135	210	047	135	183	185	173	189	223	375	453	612	325	7.5882	4.0932
12	R-112	MECH.	12	197	536	348	231	464	449	572	476	325	585	673		519	-045	525	662	068	107	195	026	141	148	168	150	166	163	351	439	640	353	10.4036	3.9378
13	R-113	FARM.	13	297	533	416	329	502	376	478	503	381	357	386	519		255	392	622	182	264	289	216	267	350	299	259	367	313	464	433	435	258	7.7790	2.4053
14	R-114	HOME EC.	14	302	301	316	380	275	176	169	238	308	-019	-015	-045	255		-002	336	190	310	321	338	308	422	346	325	454	336	375	270	-000	058	10.8317	3.7104
15	R-115	SPORTS	15	235	564	491	397	581	531	550	423	368	513	458	525	392	-002		679	061	193	305	178	201	255	244	233	288	288	456	423	458	304	6.9178	3.0647
16	R-190	INF.TOT.	16	396	880	798	683	854	805	852	724	622	678	691	662	622	336	679		201	422	520	379	387	558	497	451	593	557	764	658	626	388	135.3332	37.0145
17	R-211	MEM./SEN.	17	116	199	173	152	165	173	165	169	165	069	060	068	182	190	061	201		337	184	169	231	266	227	205	289	207	256	203	126	130	9.0153	3.0491
18	R-212	MEM./WDS.	18	230	403	412	393	389	386	339	312	316	150	135	107	264	310	193	422	337		406	398	328	486	383	342	508	459	461	334	193	171	11.7860	5.4539
19	R-220	DISG.WDS.	19	290	519	508	508	444	429	390	345	393	253	210	195	289	321	305	520	184	406		506	359	528	494	413	596	493	595	476	297	284	15.5326	7.0868
20	R-231	SPELLING	20	277	383	412	408	380	359	268	238	289	093	047	026	216	338	178	379	169	398	506		421	573	481	401	736	466	471	293	053	080	9.6658	2.9185
21	R-232	CAP.	21	336	380	348	339	362	301	276	255	329	148	135	141	267	308	201	387	231	328	359	421		533	474	409	753	350	447	298	173	161	29.6129	3.6210
22	R-233	FUNCT.	22	303	537	516	502	515	522	451	381	441	210	183	148	350	422	255	558	266	486	528	573	533		593	521	869	642	620	431	267	232	17.8347	4.4929
23	R-234	ENG.USAGE	23	301	494	466	451	448	427	376	338	410	219	185	168	299	346	244	497	227	383	494	481	474	593		493	788	474	541	386	231	184	16.8087	3.2623
24	R-235	EF.EXP.	24	254	451	417	405	414	372	341	307	396	200	173	150	259	325	233	451	205	342	413	401	409	521	493		686	426	536	377	225	177	8.7783	2.2437
25	R-230	ENG.TOT.	25	383	584	562	547	553	520	450	397	484	226	189	166	367	454	288	593	289	508	596	736	753	869	788	686		622	678	463	251	222	82.7004	12.8874
26	R-240	WD.FUNCT.	26	219	522	508	471	493	578	464	402	420	247	223	163	313	336	288	557	207	459	493	466	350	642	474	426	622		616	469	308	259	10.3257	5.3546
27	R-250	RD.COMP.	27	358	737	696	613	705	605	608	557	576	436	375	351	464	375	456	764	254	461	595	471	447	620	541	536	678	616		628	450	325	30.8138	10.3121
28	R-260	CREAT.	28	252	603	528	466	525	507	548	476	449	450	453	439	433	270	423	658	203	334	476	293	298	431	386	377	463	469	628		521	365	8.9514	3.9924
29	R-270	MECH.REAS.	29	144	534	375	274	450	513	590	469	362	567	612	640	435	-000	458	626	126	193	297	053	173	267	231	225	251	308	450	521		519	10.6993	4.3647
30	R-281	VIS.2 DIM.	30	141	342	244	197	281	336	348	273	257	298	325	353	258	058	304	388	130	171	204	080	161	232	184	177	222	259	325	365	519		12.9157	5.8554
31	R-282	VIS.3 DIM.	31	125	440	341	281	381	449	467	375	337	375	418	401	327	164	293	507	148	236	281	121	209	335	254	254	311	376	437	460	309	485	8.6625	3.2608
32	R-290	ABST.REAS.	32	206	520	444	399	468	499	478	384	428	330	342	316	318	240	349	559	185	335	422	262	333	472	365	280	476	474	569	493	524	408	8.9193	3.0459
33	R-311	I.AR.REAS.	33	247	633	532	453	602	645	596	478	497	395	431	428	420	255	443	693	224	379	424	360	369	555	447	376	566	551	632	527	500	351	8.5454	3.5590
34	R-312	II.INTROD.	34	230	622	560	470	597	818	647	474	456	432	449	380	361	204	472	719	198	394	418	382	350	567	438	316	562	594	599	499	481	345	10.7821	5.0784
35	R-320	MATH.I+II.	35	258	683	598	504	652	814	682	518	516	454	481	435	420	245	501	772	227	422	458	406	390	612	481	445	614	628	668	556	532	378	19.3275	7.9290
36	R-333	III.ADV.	36	160	492	438	364	461	711	544	377	361	403	403	325	261	104	403	586	125	299	313	253	222	395	318	281	387	456	427	404	415	280	3.5141	2.5190
37	R-340	MATH.TOT.	37	250	679	596	501	646	841	691	516	510	471	493	435	407	225	509	775	216	418	451	393	372	597	471	432	596	625	650	553	537	378	22.8417	9.8027
38	F-410	AR.COMP.	38	258	345	308	290	354	367	289	217	291	140	142	146	239	254	253	377	156	284	317	367	347	434	332	310	470	362	401	291	175	191	29.6345	20.2372
39	F-420	TEL.RDG.	39	152	115	112	109	116	097	076	055	098	041	040	056	084	116	100	127	111	091	235	138	172	170	116	131	191	137	171	151	113	211	9.9204	9.4861
40	F-430	CLER.CHK.	40	169	163	189	186	151	163	107	087	134	027	017	-008	062	159	121	165	087	183	341	261	191	242	175	164	270	221	236	168	090	216	26.0889	20.7045
41	F-440	OBJ.INSP.	41	150	176	157	172	124	136	125	132	150	093	075	088	120	143	120	181	137	135	290	122	172	183	159	147	206	180	227	237	224	321	21.8314	8.0534
42	R-410	AR.COMP.	42	320	374	337	302	391	443	334	242	297	152	163	173	285	250	303	423	196	333	405	426	378	482	350	305	512	422	405	320	209	245	39.2616	10.7357
43	R-420	TEL.RDG.	43	121	073	073	069	076	086	051	025	056	034	022	036	040	064	096	086	097	071	234	104	102	108	064	062	117	108	106	124	096	213	13.2545	7.7537
44	R-430	CLER.CHK.	44	091	-008	044	043	-006	041	-035	-033	-014	-060	-070	-101	-050	042	020	-010	047	073	267	148	055	068	033	001	081	093	046	034	-005	169	39.0680	14.7381
45	R-440	OBJ.INSP.	45	124	130	121	142	084	105	090	103	107	070	053	058	083	113	096	136	115	107	272	088	128	130	107	092	144	146	176	205	202	310	23.3984	7.2311
46	A-410	AR.COMP.	46	266	283	256	221	300	361	265	187	215	115	128	140	231	175	246	328	163	267	342	339	287	371	259	212	367	337	290	245	170	208	42.4706	10.6941
47	A-420	TEL.RDG.	47	046	004	007	004	009	045	008	-014	-007	014	-004	003	-019	-011	058	014	048	025	150	032	-006	006	-012	-030	-001	040	001	053	044	139	16.5885	9.3153
48	A-430	CLER.CHK.	48	041	-084	-029	-028	-076	-021	-093	-082	-078	-089	-098	-127	-092	-018	-029	-087	021	011	189	073	-016	-021	-037	-073	-017	019	-048	-032	-047	119	43.3944	15.3141
49	A-440	OBJ.INSP.	49	080	062	067	091	030	058	041	059	046	037	023	018	032	067	059	069	078	064	221	041	063	056	046	020	059	091	098	145	153	262	24.9654	7.2530
50	A-500	PREF.	50	130	-033	020	-013	-010	-043	-040	-025	-042	-019	-029	003	016	-005	043	-015	042	-023	076	-009	-022	-064	-039	-086	-058	-072	-059	-019	-048	048	59.4659	23.6297
51	R-601	SOCIAB.	51	203	041	058	118	028	006	-055	-008	076	-076	-090	-065	010	149	052	028	033	078	183	129	101	096	080	091	127	083	081	060	-067	015	6.7770	2.9739
52	R-602	SOC.SENSI.	52	186	143	168	224	113	086	029	076	151	-022	-052	-106	023	236	-006	112	052	145	232	202	150	201	188	158	233	179	179	096	-078	-003	4.7414	2.3927
53	R-603	DEPULS.	53	086	106	131	110	078	062	051	059	077	058	032	045	049	082	071	103	-026	026	112	041	017	032	047	010	039	041	079	072	025	050	1.9982	1.6704
54	R-604	VIGOR	54	157	148	127	150	130	135	093	106	117	051	052	084	117	083	169	159	036	079	157	112	075	102	091	091	121	111	134	124	077	087	3.7067	2.1596
55	R-605	CALMNESS	55	189	187	182	185	173	174	127	134	171	086	087	060	125	147	110	200	063	117	197	152	136	178	162	140	200	174	187	165	076	089	4.3972	2.5703
56	R-606	TIDINESS	56	192	093	106	163	082	068	004	019	091	-052	-051	-079	020	203	-003	075	068	126	182	209	140	185	150	122	211	152	121	073	-093	010	5.7814	2.8461
57	R-607	CULTURE	57	170	091	145	224	096	079	005	056	096	-073	-093	-140	025	240	-025	080	066	141	181	207	130	198	166	126	216	178	138	060	-127	-021	5.2352	2.3548
58	R-608	LEADER.	58	055	088	103	146	087	134	056	074	065	037	006	-018	005	046	098	097	027	072	107	089	030	085	072	058	086	138	087	061	-002	035	1.2911	1.3643
59	R-609	SELF-CONF.	59	136	147	143	131	128	145	102	113	130	074	069	082	093	092	110	160	070	087	154	114	099	119	122	113	146	127	155	141	075	083	5.2418	2.4958
60	R-610	MATUR.	60	181	208	203	204	189	237	151	145	161	068	092	051	120	170	100	220	075	147	207	215	132	228	189	137	237	247	200	167	044	087	11.4153	5.2318

*Decimal points omitted.

TABLE 2-7i (continued)*

Var.	Code	Description		R-282 VIS.3 DIM.	R-290 ABST.REAS.	R-311 I.AR.REAS.	R-312 II.INTROD.	R-320 MATH.I+II.	R-333 III.ADV.	R-340 MATH.TOT.	F-410 AR.COMP.	F-420 TEL.RDG.	F-430 CLER.CHK.	F-440 OBJ.INSP.	R-410 AR.COMP.	R-420 TEL.RDG.	R-430 CLER.CHK.	R-440 OBJ.INSP.	A-410 AR.COMP.	A-420 TEL.RDG.	A-430 CLER.CHK.	A-440 OBJ.INSP.	A-500 PREF.	R-602 SOCIAB.	R-602 SOC.SENSI.	R-603 IMPULS.	R-604 VIGOR	R-605 CAUGHESS	R-606 TIDINESS	R-607 CULTURE	R-608 LEADER.	R-609 SELF-CONF.	R-610 MATUR.
				31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	R-101	SCREEN.	1	125	206	247	230	258	160	250	258	152	169	150	320	121	091	124	266	046	041	080	130	203	186	086	157	189	192	170	055	136	181
2	R-102	VOCAB.	2	440	520	633	622	683	492	679	345	115	163	176	374	073	-008	130	283	004	-084	062	-033	041	143	106	148	187	093	091	088	147	208
3	R-103	LIT.	3	341	444	532	560	598	438	596	308	112	189	157	337	073	044	121	256	007	-029	067	020	058	168	131	127	182	106	145	103	143	203
4	R-104	MUSIC	4	281	399	453	470	504	364	501	290	109	186	172	302	069	043	142	221	004	-028	091	-013	118	224	110	150	185	163	224	146	131	204
5	R-105	SOC.STUD.	5	381	468	602	597	652	461	646	354	116	151	124	391	076	-006	084	300	009	-076	030	-010	028	113	078	130	173	082	096	087	128	189
6	R-106	MATH.	6	449	499	645	818	814	711	841	367	097	163	136	443	086	041	105	361	045	-021	058	-043	006	086	062	135	174	058	079	134	145	237
7	R-107	PHYS.SCI.	7	467	478	596	647	682	544	691	289	076	107	125	334	051	-035	090	265	008	-093	041	-040	-055	029	051	093	127	004	005	056	102	151
8	R-108	BIOL.SCI.	8	375	384	478	474	518	377	516	217	055	087	132	242	025	-053	103	187	-014	-082	059	-025	-008	076	059	106	134	019	056	074	113	145
9	R-109	SCI.ATT.	9	337	428	497	456	516	361	510	291	098	134	150	297	056	-014	107	215	-007	-078	046	-042	076	151	077	117	171	091	096	065	130	161
10	R-110	AERO.-SP.	10	375	330	395	432	454	403	471	140	041	027	093	152	034	-060	070	115	014	-089	037	-019	-076	-022	058	051	086	-052	-073	037	074	068
11	R-111	ELEC.	11	418	342	431	449	481	403	493	142	040	017	075	163	022	-070	053	128	-004	-098	023	-029	-090	-052	032	052	087	-051	-093	006	069	092
12	R-112	MECH.	12	401	316	428	380	435	325	435	146	056	-008	088	173	036	-101	058	140	003	-127	018	003	-065	-106	045	084	060	-079	-140	-018	082	051
13	R-113	FARM.	13	327	318	420	361	420	261	407	239	084	062	120	285	040	-050	083	231	-019	-092	032	016	010	023	049	117	125	020	025	005	093	120
14	R-114	HOME EC.	14	164	240	255	204	245	104	225	254	116	159	143	250	064	042	113	175	-011	-018	067	-005	149	236	082	083	147	203	240	046	092	170
15	R-115	SPORTS	15	293	349	443	472	501	403	509	253	100	121	120	303	096	020	096	246	058	-029	059	043	052	-006	071	169	110	-003	-025	098	110	100
16	R-190	INF.TOT.	16	507	559	693	719	772	586	775	377	127	165	181	423	086	-010	136	328	014	-087	069	-015	028	112	103	159	200	075	080	097	160	220
17	R-211	MEN./SEN.	17	148	185	224	198	227	125	216	156	111	087	137	196	097	047	115	163	048	021	078	042	033	052	-026	036	063	068	066	027	070	075
18	R-212	MEN./WDS.	18	236	335	379	394	422	299	418	284	091	183	135	333	071	073	107	267	025	011	064	-023	078	145	026	079	117	126	141	072	087	147
19	R-220	DISC.WDS.	19	281	422	424	418	458	313	451	317	235	341	290	405	234	267	272	342	150	189	221	076	183	232	112	157	197	182	181	107	154	207
20	R-231	SPELLING	20	121	262	360	382	406	253	393	367	138	261	122	426	104	148	088	339	032	073	041	-009	129	202	041	112	152	209	207	089	114	215
21	R-232	CAP.	21	209	333	369	350	390	222	372	347	172	191	172	378	102	055	128	287	-006	-016	063	-022	101	150	017	075	136	140	130	030	099	132
22	R-233	FUNCT.	22	335	472	555	567	612	395	597	434	170	242	183	482	108	068	130	371	006	-021	056	-064	096	201	032	102	178	185	198	085	119	228
23	R-234	ENG.USAGE	23	254	365	447	438	481	318	471	332	116	175	159	350	064	033	107	259	-012	-037	036	-049	080	188	047	091	162	150	166	072	122	189
24	R-235	EF.EXP.	24	254	380	426	396	445	201	432	310	131	164	147	305	062	001	092	212	-030	-073	020	-086	091	158	010	091	140	122	126	058	113	137
25	R-230	ENG.TOT.	25	311	476	566	562	614	387	596	470	191	270	206	512	117	084	144	389	-001	-017	059	-058	127	233	039	121	200	211	216	086	146	237
26	R-240	WD.FUNCT.	26	376	474	551	594	628	456	625	362	137	221	180	422	108	093	146	337	040	019	091	-072	083	179	041	111	174	152	178	138	127	247
27	R-250	RD.COMP.	27	437	569	632	599	668	427	650	401	171	236	227	405	106	046	176	290	001	-048	098	-059	081	179	079	134	187	121	138	087	155	200
28	R-260	CREAT.	28	460	493	527	499	556	404	553	291	151	168	237	320	124	034	205	245	053	-032	145	-019	060	096	072	124	165	073	060	061	141	167
29	R-270	MECH.REAS.	29	609	524	500	481	532	415	537	175	113	090	224	209	096	-005	202	170	044	-047	153	-048	-067	-078	025	077	076	-093	-127	-002	075	044
30	R-281	VIS.2 DIM.	30	485	408	351	345	378	280	378	191	211	216	321	245	213	169	310	208	139	119	262	048	015	-003	050	087	089	010	-021	035	083	087
31	R-282	VIS.3 DIM.	31		540	462	458	501	377	502	218	133	132	270	229	099	031	241	168	029	-019	180	-095	-049	-007	005	037	086	-020	-022	-001	054	082
32	R-290	ABST.REAS.	32	540		533	520	572	384	561	333	172	214	289	328	111	052	243	229	010	-029	163	-086	028	069	012	090	111	054	035	037	078	114
33	R-311	I.AR.REAS.	33	462	533		675	881	517	846	412	136	170	157	455	097	006	107	350	022	-069	039	-059	029	087	051	107	152	050	030	067	114	184
34	R-312	II.INTROD.	34	458	520	675		944	688	940	430	134	185	154	511	113	047	117	412	051	-023	063	-058	020	090	053	119	179	080	082	119	132	228
35	R-320	MATH.I+II.	35	501	572	881	944		673	982	460	147	195	169	532	115	033	123	421	043	-046	058	-064	026	096	057	124	183	074	066	106	136	228
36	R-333	III.ADV.	36	377	384	517	688	673		801	278	064	126	118	357	074	044	099	303	058	000	066	-036	005	061	042	108	155	042	053	116	117	191
37	R-340	MATH.TOT.	37	502	561	846	940	982	801		444	135	190	167	522	112	038	125	419	049	-037	064	-061	022	094	057	128	188	070	067	116	140	234
38	F-410	AR.COMP.	38	218	333	412	430	460	278	444		236	272	186	284	128	056	099	312	-027	-051	-009	-035	110	100	013	112	127	139	108	038	116	172
39	F-420	TEL.RDG.	39	133	172	136	134	147	064	135	230		389	392	24[illegible]	823	333	372	182	361	251	307	160	131	075	053	076	101	108	084	047	078	094
40	F-430	CLER.CHK.	40	132	214	170	185	195	126	190	272	389		357	3[illegible]	305	735	345	238	245	492	292	139	136	127	053	103	120	131	125	086	098	136
41	F-440	OBJ.INSP.	41	270	289	157	154	169	118	167	186	392	357		3[illegible]	392	346	950	204	254	284	785	176	134	097	062	110	115	109	092	071	097	108
42	R-410	AR.COMP.	42	229	328	455	511	532	357	522	704	247	306	240		298	241	231	894	244	172	193	129	182	162	074	190	201	201	168	126	164	269
43	R-420	TEL.RDG.	43	099	111	097	113	115	074	112	128	828	385	592	298		472	441	318	821	433	444	280	136	076	083	092	113	107	081	087	089	114
44	R-430	CLER.CHK.	44	031	052	006	047	033	044	038	056	333	735	346	241	472		419	288	448	952	450	291	153	120	095	116	108	123	130	130	095	153
45	R-440	OBJ.INSP.	45	241	243	107	117	123	099	125	099	372	345	950	231	441	419		246	356	382	939	243	142	100	081	118	117	110	099	088	104	117
46	A-410	AR.COMP.	46	168	229	350	412	421	303	419	312	182	238	204	894	318	288	246		343	262	264	194	175	154	091	183	189	182	157	144	147	252
47	A-420	TEL.RDG.	47	029	010	022	051	043	058	049	-027	361	245	254	244	821	448	356	343		464	427	303	093	049	084	076	084	068	049	096	069	094
48	A-430	CLER.CHK.	48	-019	-029	-069	-023	-046	000	-037	-051	251	492	284	172	433	952	382	262	464		446	311	135	097	098	100	085	099	110	128	078	135
49	A-440	OBJ.INSP.	49	180	163	039	063	058	066	064	-009	307	292	785	193	444	450	939	264	427	446		290	135	092	093	114	104	099	095	097	100	113
50	A-500	PREF.	50	-095	-086	-059	-058	-064	-036	-061	-035	160	139	176	129	280	291	243	194	303	311	290		173	107	189	134	137	110	123	124	112	152
51	R-601	SOCIAB.	51	-049	028	029	020	026	005	022	119	131	136	134	182	136	153	142	175	093	135	135	173		516	229	501	419	433	446	361	379	400
52	R-602	SOC.SENSI.	52	-007	069	087	090	096	061	094	100	075	127	097	162	076	120	100	154	049	097	092	107	516		217	406	559	525	611	408	279	567
53	R-603	IMPULS.	53	005	012	051	053	057	042	057	013	053	053	062	074	083	095	081	091	084	098	093	189	229	217		238	128	083	177	235	125	171
54	R-604	VIGOR	54	037	090	107	119	124	108	128	112	076	103	110	190	092	114	118	183	076	100	114	134	501	406	238		422	408	415	405	327	516
55	R-605	CAUGHESS	55	086	111	152	179	183	155	188	127	101	120	115	201	113	103	117	189	084	085	104	137	419	559	128	422		516	516	391	432	592
56	R-606	TIDINESS	56	-020	054	050	080	074	042	070	139	108	131	109	201	107	123	110	182	068	099	099	110	433	525	083	408	516		597	340	279	619
57	R-607	CULTURE	57	-022	035	030	082	066	053	067	108	084	125	092	168	081	130	099	157	049	110	095	122	446	611	177	415	516	597		412	308	573
58	R-608	LEADER.	58	-001	037	067	119	106	116	116	038	047	086	071	124	087	130	086	144	096	128	097	124	361	408	235	405	391	340	412		325	474
59	R-609	SELF-CONF.	59	054	078	114	132	136	117	140	116	078	098	097	164	089	095	104	147	069	078	100	112	379	279	125	327	432	279	308	325		398
60	R-610	MATUR.	60	082	114	184	228	228	191	234	172	094	136	108	269	114	153	117	252	094	135	113	152	400	567	171	516	592	619	573	474	398	

*Decimal points omitted.

TABLE 2-7j

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-12 Boys, Subsample 0 (N=3027)

Var.	Code	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	MEAN	S.D.
1	R-101	SCREEN.	1		382	328	280	406	252	293	260	324	250	260	371	312	276	326	437	097	144	275	292	332	278	278	244	363	204	373	253	201	105	11.3534	1.1055
2	R-102	VOCAB.	2	382		721	666	717	688	743	603	589	631	629	567	422	469	531	884	158	353	539	442	377	567	528	476	607	546	738	582	519	272	13.9802	3.8096
3	R-103	LIT.	3	328	721		669	734	630	650	527	495	555	472	390	307	388	547	811	128	347	522	455	340	534	478	433	569	530	702	495	358	184	13.8041	4.6653
4	R-104	MUSIC	4	280	666	669		616	574	577	454	451	522	474	367	260	382	490	738	070	301	514	398	289	463	436	385	500	464	594	468	343	198	6.4424	3.0501
5	R-105	SOC.STUD.	5	406	717	734	616		636	679	548	517	541	505	442	384	396	576	832	149	332	456	437	374	541	474	425	575	503	699	480	391	221	16.5920	4.9950
6	R-106	MATH.	6	252	688	630	574	636		756	475	482	538	503	416	270	372	507	815	163	384	472	432	331	617	486	442	593	631	631	510	502	286	11.2299	6.1466
7	R-107	PHYS.SCI.	7	293	743	650	577	679	756		596	517	639	703	520	358	418	475	864	163	344	453	377	329	560	482	425	557	539	654	539	546	276	10.3783	4.3634
8	R-108	BIOL.SCI.	8	260	603	527	454	548	475	596		431	514	524	476	445	409	317	692	132	219	327	251	273	385	378	334	413	389	519	450	439	213	6.7823	2.2452
9	R-109	SCI.ATT.	9	324	589	495	451	517	482	517	431		450	455	426	313	333	393	646	149	255	385	300	300	423	408	377	459	420	580	449	420	235	6.5385	1.8815
10	R-110	AERO.-SP.	10	250	631	555	522	541	538	639	514	450		632	502	311	384	386	732	129	197	374	234	243	378	380	336	399	368	559	514	509	208	5.0866	2.4489
11	R-111	ELEC.	11	260	629	472	474	505	573	703	524	455	632		628	367	450	304	760	129	213	339	220	239	396	351	325	392	372	513	536	581	266	10.4926	4.5128
12	R-112	MECH.	12	371	567	390	367	442	416	520	476	426	502	628		497	455	290	664	131	166	335	218	277	329	340	290	371	276	453	484	536	225	13.5296	3.1735
13	R-113	FARM.	13	312	422	307	280	384	270	358	445	313	311	367	497		392	264	502	137	160	234	221	255	296	293	239	334	227	363	360	371	163	8.5385	2.1399
14	R-114	HOME EC.	14	278	469	388	382	394	372	418	409	333	384	450	456	352		273	575	133	178	259	202	208	270	272	242	303	267	375	408	332	183	9.2213	2.9118
15	R-115	SPORTS	15	326	531	547	490	576	507	475	317	393	386	304	230	266	275		626	078	258	377	380	287	381	367	315	439	359	513	336	232	169	8.7734	2.9410
16	R-190	INF.TOT.	16	437	884	811	738	832	815	864	692	646	732	780	664	502	595	626		181	377	557	464	409	620	561	504	653	597	781	643	590	304	152.9422	37.5150
17	R-211	MEM./SEN.	17	097	158	128	070	149	163	163	132	149	129	129	131	137	133	078	181		292	097	153	248	222	218	191	266	155	199	204	175	122	8.6333	2.9563
18	R-212	MEM./WDS.	18	144	353	347	301	332	388	344	219	255	197	213	166	160	178	258	377	292		325	351	277	404	342	299	428	380	373	296	237	169	11.1639	5.2608
19	R-220	DISC.MDS.	19	275	539	522	514	456	472	453	327	385	371	339	335	234	280	377	557	097	325		490	296	491	454	419	542	472	569	487	368	302	15.6326	7.0445
20	R-231	SPELLING	20	292	442	455	398	437	432	377	251	300	234	220	218	221	202	380	464	153	351	490		455	576	491	425	740	436	477	315	165	100	9.5068	3.0921
21	R-232	CAP.	21	332	377	340	289	374	331	329	273	300	243	239	277	255	208	337	409	248	277	296	455		551	537	464	764	302	394	309	257	190	29.4120	3.9295
22	R-233	FUNCT.	22	278	567	534	463	541	617	560	385	423	378	396	329	296	270	381	620	222	404	491	570	551		624	532	865	607	588	436	398	280	17.5094	4.5611
23	R-234	ENG.USAGE	23	278	528	478	436	474	486	482	378	408	380	351	340	293	272	367	561	218	342	454	491	537	624		545	814	468	537	411	348	242	16.9551	3.4728
24	R-235	EF.EXP.	24	246	476	433	385	425	442	425	334	377	336	325	290	239	242	315	501	191	299	419	423	464	532	595		707	410	547	411	329	247	8.9812	2.2653
25	R-230	ENG.TOT.	25	363	607	569	500	575	593	557	413	459	399	392	371	334	303	439	651	266	428	542	740	784	865	814	707		572	641	473	385	276	82.3644	13.7397
26	R-240	WD.FUNCT.	26	204	546	530	464	503	631	539	389	420	368	372	276	227	267	359	597	155	380	472	436	302	607	468	410	572		593	470	393	279	10.1348	5.1898
27	R-250	RD.COMP.	27	373	738	702	594	699	631	654	519	580	559	513	453	363	375	513	781	199	373	569	477	394	588	537	547	641	593		622	495	295	32.6670	10.3510
28	R-260	CREAT.	28	253	582	495	468	480	510	539	450	449	514	536	484	360	408	335	643	204	296	487	315	301	436	411	411	473	470	622		566	346	10.1130	4.2174
29	R-270	MECH.REAS.	29	201	519	358	343	391	502	546	439	420	509	581	536	371	332	232	990	175	237	368	165	257	398	348	329	385	395	495	566		468	13.2854	3.9434
30	R-261	VIS.2 DIM.	30	108	272	184	198	221	286	276	213	235	208	266	225	163	183	169	366	122	169	302	150	190	260	242	247	276	279	295	346	468		14.4939	5.4982
31	R-262	VIS.3 DIM.	31	093	375	276	274	316	418	420	328	304	372	438	378	229	300	137	448	146	212	268	138	207	340	273	289	320	356	390	465	607	461	9.6914	3.3769
32	R-290	ABST.REAS.	32	160	491	419	401	438	531	511	345	411	403	409	339	246	240	323	547	153	300	405	303	289	464	385	386	496	466	555	493	566	403	9.4668	2.9240
33	R-311	I.AR.REAS.	33	263	620	517	458	575	670	599	439	504	463	504	439	342	362	428	689	204	272	439	422	427	604	521	493	631	536	616	510	496	317	9.7760	3.6258
34	R-312	II.INTROD.	34	219	617	561	506	583	837	671	414	454	464	490	339	231	306	465	712	183	397	438	448	388	647	500	466	630	619	595	474	468	307	12.2088	5.6897
35	R-320	MATH. I & II.	35	254	666	586	525	625	832	693	457	510	499	734	607	455	353	486	757	206	417	472	472	435	679	547	514	679	632	650	526	516	336	21.9848	8.6444
36	R-333	III.ADV.	36	174	530	493	466	488	767	603	368	400	437	446	273	163	271	412	629	151	342	387	377	304	526	422	393	518	538	495	423	415	278	4.4992	3.1511
37	R-340	MATH.TOT.	37	245	662	590	535	618	850	709	455	505	507	536	390	273	348	490	760	190	418	478	469	420	671	540	506	668	638	640	524	514	336	26.4840	11.2230
38	P-410	AR.COMP.	38	217	351	298	267	372	419	346	203	278	217	212	201	186	166	349	393	172	244	295	383	343	432	350	324	470	352	416	284	225	198	31.5345	20.3506
39	P-420	TRL.RDG.	39	097	110	133	104	131	138	104	053	075	071	077	104	070	060	125	139	058	098	199	116	101	129	106	122	145	109	174	133	145	206	10.2577	10.1736
40	P-430	CLER.CHK.	40	162	177	188	168	172	187	153	088	101	093	069	081	070	085	198	189	060	176	354	287	174	211	195	184	264	199	246	152	128	231	24.7902	20.8155
41	P-440	OBJ.INSP.	41	089	120	124	144	081	119	113	076	103	104	106	099	044	074	130	141	087	105	229	080	106	101	108	091	124	112	169	205	247	300	21.9078	8.1413
42	R-410	AR.COMP.	42	283	367	309	276	378	461	358	193	276	187	210	195	200	171	374	408	218	303	367	455	411	490	381	339	535	382	372	282	217	234	40.8209	11.0799
43	R-420	TRL.RDG.	43	099	072	099	078	091	119	057	018	023	017	038	057	038	045	107	094	058	097	237	107	074	100	082	057	108	105	097	096	111	213	13.9392	8.2056
44	R-430	CLER.CHK.	44	105	015	057	052	026	075	004	-027	-013	-041	-057	-042	-018	015	103	025	054	098	288	174	080	074	069	044	111	110	067	034	033	202	38.1212	14.7591
45	R-440	OBJ.INSP.	45	089	088	099	115	050	089	077	050	070	072	080	082	024	064	109	106	087	089	218	052	088	065	080	053	087	089	120	180	227	297	23.4400	7.3822
46	A-410	AR.COMP.	46	244	273	230	204	277	358	265	132	198	117	151	137	150	126	285	302	184	254	308	372	337	388	293	253	425	293	241	201	151	191	43.9164	11.0993
47	A-420	TRL.RDG.	47	064	007	028	022	017	055	-013	-024	-039	-045	-015	-011	-009	013	049	013	036	050	187	057	019	032	027	-031	030	062	-018	023	035	139	17.6207	10.0485
48	A-430	CLER.CHK.	48	061	-060	-012	-009	-045	012	-063	-074	-062	-094	-103	-090	-054	-018	042	-053	042	046	207	093	024	-000	001	-026	023	051	-025	-025	-016	153	42.5649	15.4513
49	A-440	OBJ.INSP.	49	078	043	061	071	011	048	029	015	026	028	043	056	-000	045	073	056	077	062	182	016	058	018	041	004	037	054	053	133	179	260	24.9722	7.4620
50	A-500	PREF.	50	145	-108	-063	-088	-087	-115	-112	-076	-091	-095	-110	-046	-028	-056	-017	-105	020	-031	016	-017	-005	-023	-098	-135	-082	-097	-121	-088	-096	-027	61.3026	26.5707
51	R-601	SOCIAB.	51	189	061	064	087	045	043	002	009	026	-006	-043	059	047	062	149	061	002	044	140	095	051	060	039	040	073	037	060	045	-019	012	6.5702	2.9544
52	R-602	SOC.SENSI.	52	152	170	188	210	136	163	142	098	129	158	102	093	065	120	131	190	021	099	210	140	095	151	128	134	167	168	171	130	074	046	4.4230	2.2972
53	R-603	DEFULS.	53	112	096	092	070	066	028	035	045	062	080	039	000	036	040	093	085	011	002	116	060	018	025	015	002	031	022	077	059	022	028	2.0317	1.6887
54	R-604	VIGOR	54	169	144	131	146	129	133	109	097	087	085	051	105	129	130	209	164	007	064	149	115	083	110	089	084	124	087	116	088	039	053	3.8388	2.1638
55	R-605	CALMNESS	55	199	213	197	191	170	225	195	150	142	178	169	141	127	176	163	242	068	137	169	149	121	191	149	141	193	166	162	168	157	094	4.5814	2.5395
56	R-606	TIDINESS	56	156	125	112	134	091	135	079	034	043	068	057	062	037	113	089	124	016	067	129	134	081	126	089	080	131	103	096	079	026	034	5.4149	2.8321
57	R-607	CULTURE	57	101	071	114	153	054	099	046	049	011	031	006	-004	030	110	067	087	010	043	101	088	049	109	075	070	100	101	060	050	-027	004	4.7539	2.3653
58	R-608	LEADER.	58	085	128	148	167	119	177	120	080	076	059	057	038	022	083	164	169	011	077	154	118	061	135	085	060	120	147	102	086	019	037	1.4004	1.4255
59	R-609	SELF-CONF.	59	181	211	196	197	168	196	179	166	145	1.0	168	164	104	160	154	234	060	122	178	140	111	170	127	125	172	156	189	161	113	073	5.3264	2.4238
60	R-610	MATUR.	60	187	204	171	167	159	237	187	132	125	144	172	156	120	166	100	228	015	094	189	164	122	201	151	132	198	202	173	167	108	077	11.7562	5.3637

*Decimal points omitted.

TABLE 2-7j (continued)*

Var.	Code	Description		1	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	MEAN	S.D.
				R-282	R-290	R-311	R-312	R-320	R-333	R-340	P-410	P-420	P-430	P-440	R-410	R-420	R-430	R-440	A-410	A-420	A-430	A-440	A-500	R-601	R-602	R-603	R-604	R-605	R-606	R-607	R-608	R-609	R-610		
				VIS.3 DIM.	ABST.REAS.	I.AR.REAS.	II.INDUCD.	MATH.I+II.	III.ADV.	MATH.TOT.	AR.COMP.	TEL.RDG.	CLER.CHK.	OBJ.INSP.	AR.COMP.	TEL.RDG.	CLER.CHK.	OBJ.INSP.	AR.COMP.	TEL.RDG.	CLER.CHK.	OBJ.INSP.	PREP.	SOCIAB.	SOC.SENSI.	IMPULS.	VIGOR	CALMNESS	TIDINESS	CULTURE	LEADER.	SELF-CONF.	MATUR.			
1	R-101	SCREEN.	1	093	160	263	219	254	174	245	217	097	162	089	283	099	105	089	244	064	061	078	145	189	152	112	169	199	156	101	085	181	187	11.5534	1.1055
2	R-102	VOCAB.	2	375	491	620	617	666	530	662	351	110	177	120	367	072	015	088	273	007	-060	043	-108	061	170	095	144	213	125	071	128	211	204	13.9802	3.8096
3	R-103	LIT.	3	276	419	513	561	586	493	590	298	133	188	124	309	099	057	099	230	028	-012	061	-063	064	188	092	131	197	112	114	148	196	171	13.8041	4.6653
4	R-104	MUSIC	4	274	401	458	506	525	466	535	267	104	168	144	276	078	052	115	204	022	-009	071	-088	087	210	070	146	191	134	153	167	197	167	6.4424	3.0501
5	R-105	SOC.STUD.	5	316	438	575	583	625	488	618	372	131	172	081	378	091	026	050	277	017	-045	011	-087	045	136	066	129	170	091	054	119	168	159	16.5920	4.9230
6	R-106	MATH.	6	418	531	670	837	832	767	856	419	138	187	119	461	118	075	089	358	055	012	048	-115	043	163	028	133	225	135	099	177	196	237	11.2299	6.1466
7	R-107	PHYS.SCI.	7	420	511	599	671	693	603	703	346	104	153	113	358	057	004	077	265	-013	-063	029	-112	002	142	035	109	195	079	046	120	179	187	10.3703	4.3634
8	R-108	BIOL.SCI.	8	328	345	439	414	457	368	455	203	053	088	076	193	018	-027	050	132	-024	-074	015	-074	009	098	045	097	150	034	049	080	166	132	6.7823	2.2452
9	R-109	SCI.ATT.	9	384	411	504	454	510	400	505	278	075	101	103	276	023	-013	070	198	-039	-062	026	-091	026	129	062	087	142	043	011	076	145	125	6.9385	1.8815
10	R-110	AERO.-SP.	10	372	393	463	464	499	437	507	217	071	093	134	187	017	-041	073	117	-045	-094	028	-095	-006	158	080	085	178	068	031	059	150	144	9.0866	2.4488
11	R-111	ELEC.	11	438	409	504	490	534	446	536	212	077	069	106	210	038	-057	080	151	-015	-103	043	-110	-043	102	039	051	169	057	006	057	108	172	10.4926	4.5128
12	R-112	MECH.	12	378	339	439	339	407	273	390	201	104	084	099	195	057	-042	082	137	-011	-090	054	-046	059	093	099	105	141	062	-004	038	064	156	13.5296	3.1735
13	R-113	FARM.	13	229	246	342	231	295	163	273	189	070	070	044	203	038	-018	024	150	-009	-054	-000	-028	047	065	036	129	127	037	030	022	104	120	8.5385	2.1399
14	R-114	HOME EC.	14	300	240	362	306	353	271	348	166	060	085	074	174	045	015	064	126	013	-018	045	-056	062	120	049	130	176	113	110	083	160	166	9.2213	2.9118
15	R-115	SPORTS	15	137	323	428	465	486	412	490	349	125	198	130	376	107	103	109	285	049	042	073	-017	149	131	093	209	143	089	047	146	154	100	8.7734	2.9410
16	R-190	INF.TOT.	16	448	547	689	712	757	629	760	393	139	189	141	409	094	025	104	302	013	-053	056	-105	061	190	085	164	242	124	087	149	234	228	152.9422	37.5150
17	R-211	MEN./SEN.	17	146	153	204	183	206	141	198	172	058	060	087	218	058	054	087	184	036	042	077	020	-002	021	011	007	068	016	010	011	060	015	8.6333	2.9563
18	R-212	MEN./WDS.	18	212	300	372	397	417	342	418	244	098	176	105	303	067	098	089	254	058	046	062	-031	044	089	002	064	117	067	043	077	122	094	11.1639	5.2608
19	R-220	DESC.WDS.	19	268	405	439	438	472	387	472	295	199	354	229	367	237	288	218	308	187	207	182	016	140	210	116	149	169	129	101	154	178	189	15.6326	7.0445
20	R-231	SPELLING	20	138	303	422	448	472	377	469	383	116	287	080	455	107	174	052	372	057	093	016	-017	095	140	060	115	149	134	088	118	140	164	9.5068	3.0921
21	R-232	CAP.	21	207	289	427	388	435	304	420	343	101	130	106	411	074	080	088	337	019	024	058	-005	051	095	018	088	121	081	049	061	111	122	29.4120	3.9295
22	R-233	FUNCT.	22	340	464	604	647	679	526	671	452	129	211	101	490	108	074	065	388	032	-000	018	-091	060	101	025	110	191	126	109	135	170	201	17.5094	4.5611
23	R-234	ENG.USAGE	23	273	385	521	500	547	422	540	350	106	195	108	381	082	069	080	293	027	001	041	-098	039	128	015	089	149	089	075	085	127	151	16.9551	3.4728
24	R-235	EF.EXP.	24	289	386	493	446	514	393	506	324	122	184	091	339	057	044	053	253	-031	-026	006	-135	045	134	002	084	141	080	070	060	125	132	8.9812	2.2653
25	R-230	ENG.TOT.	25	320	466	631	630	679	518	668	470	145	244	124	535	108	111	087	425	030	023	037	-082	073	167	031	124	193	131	100	120	172	198	82.3444	13.7397
26	R-240	WD.FUNCT.	26	356	466	536	619	632	538	638	352	109	199	112	382	105	110	089	293	062	051	054	-097	037	168	022	087	166	103	101	147	156	202	10.1348	5.1698
27	R-250	RD.COMP.	27	390	555	616	595	650	495	640	416	174	246	169	372	097	067	120	241	-018	-025	053	-121	060	171	077	116	162	096	060	102	189	173	32.6670	10.3910
28	R-260	CREAT.	28	465	493	510	474	526	423	524	284	133	152	205	282	096	034	180	201	023	-025	133	-088	045	130	059	088	168	079	050	086	161	167	10.1130	4.2174
29	R-270	MECH.REAS.	29	607	566	496	468	516	415	514	225	145	128	247	217	111	033	227	151	035	-016	179	-096	-019	074	022	039	157	025	-027	019	113	108	13.2854	3.9434
30	R-281	VIS.2 DIM.	30	461	403	317	307	336	278	336	198	206	231	300	234	213	202	297	191	139	153	260	-027	012	044	028	053	094	034	000	037	073	077	14.4939	5.6982
31	R-282	VIS.3 DIM.	31		537	446	415	460	348	458	215	130	107	252	199	086	025	224	133	009	-017	169	-119	-056	038	-002	008	093	015	-014	037	067	092	9.6914	3.3769
32	R-290	ABST.REAS.	32	537		534	538	578	457	573	337	137	194	241	325	099	071	206	226	023	004	144	-132	000	095	-001	061	118	061	020	075	094	109	9.4668	2.9240
33	R-311	I.AR.REAS.	33	446	534		708	885	591	848	443	132	177	105	490	110	048	070	382	046	-019	023	-122	036	107	025	105	178	079	019	114	162	159	9.7760	3.6258
34	R-312	II.INDUCD.	34	415	538	708		955	775	953	461	137	194	115	540	122	078	085	437	061	013	042	-118	044	133	013	102	190	122	067	160	178	206	12.2088	5.6897
35	R-320	MATH.I+II.	35	460	578	885	955		758	983	489	146	202	120	561	126	072	085	446	059	000	038	-129	044	122	020	111	200	114	052	153	185	215	21.9848	8.6444
36	R-333	III.ADV.	36	368	457	591	775	758		865	353	121	172	115	439	125	087	094	368	081	034	062	-086	053	128	034	122	206	096	082	164	181	203	4.4992	3.1511
37	R-340	MATH.TOT.	37	458	573	848	953	983	865		476	146	204	125	555	132	080	092	448	068	010	046	-126	049	138	025	120	212	115	063	164	193	223	26.4840	11.2230
38	P-410	AR.COMP.	38	215	337	443	461	489	353	476		274	285	162	704	194	112	103	326	039	015	027	-052	092	063	001	105	102	127	040	070	083	146	31.5345	20.3506
39	P-420	TEL.RDG.	39	130	137	132	137	146	121	146	274		370	380	266	814	320	352	186	317	241	282	101	084	039	025	050	087	069	037	042	066	070	10.2577	10.1736
40	P-430	CLER.CHK.	40	107	194	177	194	202	172	204	285	370		310	343	392	720	314	282	265	466	283	086	135	105	030	100	106	118	096	084	116	121	24.7902	20.8155
41	P-440	OBJ.INSP.	41	252	241	105	115	120	115	125	162	380	510		235	394	329	951	214	258	280	790	115	064	060	074	055	060	036	044	074	061	054	21.9078	8.1413
42	R-410	AR.COMP.	42	199	325	490	540	561	439	555	704	266	343	235		331	322	234	901	271	256	207	099	152	102	061	179	171	166	085	161	144	229	40.8209	11.0799
43	R-420	TEL.RDG.	43	086	099	110	122	126	125	132	194	814	392	394	331		495	436	322	809	455	434	218	112	060	059	082	099	073	058	079	081	092	13.9392	8.2056
44	R-430	CLER.CHK.	44	025	071	040	078	072	087	080	112	320	720	329	322	495		408	360	485	950	449	246	156	112	087	122	109	123	128	135	100	139	38.1212	14.7591
45	R-440	OBJ.INSP.	45	224	206	070	085	085	094	092	103	352	314	951	234	436	408		249	356	379	941	180	077	074	098	074	073	048	059	091	071	068	23.4400	7.3822
46	A-410	AR.COMP.	46	133	226	382	437	448	368	448	326	186	282	214	901	322	360	249		357	332	259	103	146	097	081	174	165	142	088	171	141	216	43.9164	11.0993
47	A-420	TEL.RDG.	47	009	023	046	061	059	081	068	039	317	265	258	271	809	485	356	337		499	429	254	098	058	072	083	074	050	046	087	065	080	17.6207	10.0485
48	A-430	CLER.CHK.	48	-017	004	-019	013	000	034	010	015	241	468	280	256	455	950	379	332	499		444	274	138	095	102	111	092	104	120	134	075	123	42.5645	15.4513
49	A-440	OBJ.INSP.	49	169	144	023	042	038	062	046	027	282	283	790	207	434	449	941	259	423	444		231	083	082	110	086	080	056	068	099	074	075	24.9722	7.4620
50	A-500	PREP.	50	-119	-132	-122	-118	-129	-086	-124	-052	101	086	115	099	218	246	180	163	254	274	231		176	080	201	166	124	088	115	113	066	116	61.3026	26.5707
51	R-601	SOCIAB.	51	-056	000	036	044	044	053	049	092	084	135	064	152	112	156	077	146	098	138	083	176		501	259	501	404	381	413	382	333	409	6.5702	2.9544
52	R-602	SOC.SENSI.	52	038	095	107	133	132	128	138	063	039	105	060	102	060	112	074	097	058	095	082	080	501		219	436	562	488	556	408	280	558	4.4232	2.2972
53	R-603	IMPULS.	53	-002	-001	028	013	020	034	025	001	025	050	074	061	059	097	096	081	072	102	110	201	259	219		235	147	087	190	260	116	198	2.0317	1.6887
54	R-604	VIGOR	54	008	061	105	102	111	122	120	105	050	100	055	179	082	132	074	174	083	111	086	124	501	436	235		421	429	421	439	299	561	3.8388	2.1638
55	R-605	CALMNESS	55	093	118	178	190	200	206	212	102	087	106	060	171	099	109	073	165	074	092	080	124	404	562	147	421		477	479	360	435	588	4.5814	2.5395
56	R-606	TIDINESS	56	015	061	079	122	114	096	115	127	069	118	036	166	073	123	048	142	050	104	056	088	381	488	087	429	477		546	332	278	606	5.4149	2.8321
57	R-607	CULTURE	57	-014	020	019	067	052	082	063	040	047	096	044	085	058	128	059	088	046	120	068	115	413	556	190	421	479	546		431	294	536	4.7539	2.3653
58	R-608	LEADER.	58	037	075	114	160	153	104	164	070	042	084	074	161	079	135	091	171	087	124	099	113	342	408	260	439	360	332	431		315	485	1.4004	1.4255
59	R-609	SELF-CONF.	59	067	094	162	178	185	181	193	083	066	116	061	144	081	100	071	141	065	075	074	066	333	280	136	299	435	278	294	315		409	3.3264	2.4238
60	R-610	MATUR.	60	092	109	189	206	215	203	223	146	070	121	054	229	092	139	068	216	080	123	075	136	409	558	198	561	588	406	536	485	409		11.7562	5.3617

*Decimal points omitted.

TABLE 2-7k

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade 12 Girls, Subsample 0 (N=3061)

Var.	Code	Description		R-101 SCREEN.	R-102 VOCAB.	R-103 LIT.	R-104 MUSIC	R-105 SOC.STUD.	R-106 MATH	R-107 PHYS.SCI.	R-108 BIOL.SCI.	R-109 SCI.ATT.	R-110 AERO.-SP.	R-111 ELEC.	R-112 MECH.	R-113 FARM.	R-114 HOME EC.	R-115 SPORTS	R-190 INF.TOT.	R-211 MEM./SEN.	R-212 MEM./WDS.	R-220 DISC.WDS.	R-231 SPELLING	R-232 CAP.	R-233 FUNCT.	R-234 ENG.USAGE	R-235 EXP.EXP.	R-230 ENG.TOT.	R-240 WD.FUNCT.	R-250 RD.COMP.	R-260 CREAT.	R-270 MECH.REAS.	R-281 VIS.2DIM.	MEAN	S.D.
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1	R-101	SCREEN.	1		250	225	233	276	143	157	159	214	099	168	207	239	271	207	304	112	144	223	177	252	220	168	148	252	166	273	143	169	160	11.7351	.7633
2	R-102	VOCAB.	2	250		704	668	723	621	670	615	559	433	483	493	518	475	533	866	238	469	521	413	362	570	498	460	602	562	745	586	530	398	12.6560	4.0630
3	R-103	LIT.	3	225	704		660	722	604	617	564	490	409	405	368	433	394	400	813	211	423	467	385	317	515	475	424	552	520	704	485	429	232	13.8063	4.7055
4	R-104	MUSIC	4	233	668	660		650	535	554	476	44	374	383	362	39	350	471	746	186	372	500	370	306	473	440	386	515	464	631	458	418	252	7.0647	2.9488
5	R-105	SOC.STUD.	5	276	723	722	650		613	650	579	428	391	442	425	497	460	513	943	227	429	452	400	337	543	460	413	565	528	716	495	445	266	14.6286	4.8297
6	R-106	MATH.	6	143	621	604	535	613		707	515	427	377	493	379	352	311	432	779	234	426	395	354	265	531	432	347	513	613	566	432	479	276	8.0301	5.3159
7	R-107	PHYS.SCI.	7	157	670	617	554	650	707		599	454	450	556	466	443	376	465	822	239	418	380	314	275	485	423	339	486	548	612	476	538	270	7.2339	3.9747
8	R-108	BIOL.SCI.	8	159	615	564	476	578	515	599		440	355	414	445	408	379	378	716	202	365	361	285	254	434	386	326	444	460	577	438	449	240	5.8239	2.2146
9	R-109	SCI.ATT.	9	214	559	490	446	498	427	454	440		283	316	354	390	365	383	621	169	329	375	257	253	439	370	357	440	425	586	409	432	260	6.4668	1.8236
10	R-110	AERO.-SP.	10	099	433	409	374	391	377	450	355	283		398	350	306	225	366	540	110	253	240	159	156	264	236	213	270	277	390	341	385	193	2.7605	1.7256
11	R-111	ELEC.	11	168	483	405	383	442	493	558	414	316	398		465	350	338	367	635	159	255	252	190	194	299	258	203	303	324	394	386	407	230	5.7625	2.8054
12	R-112	MECH.	12	207	493	368	362	425	379	466	445	354	350	465		528	459	385	630	181	377	278	177	209	315	267	226	31	323	442	447	443	280	8.6227	3.0197
13	R-113	FARM.	13	239	518	433	392	497	352	443	483	390	306	350	528		472	411	636	191	339	314	238	248	392	336	277	395	370	506	419	401	263	7.7102	2.4208
14	R-114	HOME EC.	14	271	475	354	350	408	311	376	379	365	225	338	459	472		331	577	160	252	264	212	249	340	292	261	355	309	423	419	365	253	13.6168	3.2230
15	R-115	SPORTS	15	207	533	480	471	513	432	465	378	383	366	367	385	411	331		641	152	298	328	264	236	369	296	288	373	364	499	417	397	238	5.9307	2.5202
16	R-190	INF.TOT.	16	304	866	813	746	843	779	822	716	621	540	635	630	636	577	641		273	502	525	421	377	613	531	442	632	630	792	615	608	352	131.8455	33.5982
17	R-211	MEM./SEN.	17	112	238	211	186	227	234	239	202	169	110	159	181	191	160	152	273		375	165	208	255	276	251	211	313	246	286	277	207	174	9.3551	3.1229
18	R-212	MEM./WDS.	18	144	469	423	372	429	424	418	365	329	253	255	277	339	252	298	502	375		415	391	323	467	400	363	507	449	490	394	330	265	13.2587	5.6376
19	R-220	DISC.WDS.	19	223	521	467	500	452	395	380	361	375	240	252	278	314	264	328	525	165	415		498	324	510	445	417	569	494	564	459	370	329	17.4698	6.9302
20	R-231	SPELLING	20	177	413	385	372	400	354	314	285	257	159	190	177	238	212	264	421	208	391	498		432	537	484	390	727	424	444	316	197	175	11.0908	2.6585
21	R-232	CAP.	21	252	362	317	306	337	265	275	254	253	156	194	209	248	249	236	377	255	323	324	432		547	508	450	753	514	378	276	241	209	30.5815	2.7675
22	R-233	FUNCT.	22	220	570	515	473	543	531	485	434	439	264	299	315	392	340	349	613	276	467	510	537	547		611	507	870	622	599	438	491	317	19.6393	4.1814
23	R-234	ENG.USAGE	23	168	498	475	440	460	432	423	386	370	236	258	267	336	292	296	531	251	400	445	484	508	611		502	809	481	512	373	343	226	17.9170	3.0452
24	R-235	EF.EXP.	24	148	460	424	386	413	347	339	326	357	213	203	226	277	261	288	462	211	363	417	390	450	507	502		698	395	502	353	294	234	9.4028	1.9584
25	R-230	ENG.TOT.	25	252	602	552	515	565	513	486	444	440	270	303	316	395	335	373	632	313	507	569	727	753	870	809	688		596	634	459	402	306	88.7115	11.4714
26	R-240	WD.FUNCT.	26	166	562	520	464	528	613	548	460	425	277	324	323	370	309	364	630	246	449	494	424	314	622	481	395	596		613	480	474	298	11.6335	5.5702
27	R-250	RD.COMP.	27	273	745	704	631	716	566	612	577	586	390	394	442	506	423	499	792	286	490	564	444	378	599	512	502	634	613		601	531	329	33.2787	9.4243
28	R-260	CREAT.	28	193	556	465	458	495	432	476	438	409	341	386	447	419	419	417	615	277	394	459	316	276	438	373	353	459	480	601		496	332	9.1457	3.8549
29	R-270	MECH.REAS.	29	169	530	429	418	445	479	538	449	432	385	407	443	401	365	397	608	207	330	370	197	241	431	343	294	402	474	531	496		419	8.7537	3.5633
30	R-281	VIS.2 DIM.	30	160	308	232	252	246	276	270	240	260	193	230	290	263	253	238	352	174	265	329	175	209	317	226	234	306	298	329	332	419		11.9801	5.6817
31	R-282	VIS.3 DIM.	31	147	437	351	360	384	420	448	376	368	313	328	380	375	347	312	518	180	330	312	165	220	401	318	266	367	426	478	456	570	451	8.3986	3.0974
32	R-290	ABST.REAS.	32	192	510	442	450	468	457	460	379	420	267	292	313	338	331	357	558	210	386	430	288	310	481	382	367	481	472	573	466	525	382	9.0617	2.9218
33	R-311	I.AR.REAS.	33	189	604	509	475	575	583	552	452	492	321	389	402	412	390	408	670	267	432	425	405	392	587	468	425	599	595	635	506	506	336	8.6808	3.5674
34	R-312	II.INEROD.	34	157	573	525	475	570	793	634	463	408	332	425	354	343	304	399	691	277	407	398	397	353	575	476	367	576	600	557	446	474	303	10.1147	4.7667
35	R-320	MATH.I+II.	35	189	648	572	525	632	777	662	506	491	362	452	414	412	377	445	756	301	462	453	442	408	641	522	433	647	655	653	521	539	351	10.7955	7.5608
36	R-333	III.ADV.	36	086	437	407	370	423	679	509	347	312	323	366	253	223	200	308	540	183	315	290	256	227	395	331	267	392	451	393	336	390	233	3.2568	2.4422
37	R-340	MATH.TOT.	37	176	641	572	523	624	809	671	503	481	379	463	403	393	358	443	754	292	458	444	426	391	624	511	422	629	651	633	512	540	346	22.0523	9.3074
38	F-410	AR.COMP.	38	207	349	277	292	340	368	299	240	287	134	217	244	289	248	280	398	191	310	355	395	345	461	353	294	487	393	400	311	257	248	33.4548	17.9879
39	F-420	TEL.RDG.	39	154	077	089	123	095	055	048	039	052	017	053	056	051	062	073	095	066	112	241	119	096	102	086	064	122	114	131	164	078	243	11.3930	7.9677
40	F-430	CLER.CHK.	40	156	192	175	220	164	140	138	096	136	057	112	087	086	087	129	191	094	193	386	265	144	204	168	141	239	200	221	195	143	232	31.5273	19.0982
41	F-440	OBJ.INSP.	41	172	177	157	201	154	127	162	115	128	102	118	150	135	171	137	206	108	170	281	128	159	180	149	103	191	175	241	262	248	322	23.2581	7.2881
42	R-410	AR.COMP.	42	248	342	286	289	345	413	325	232	273	150	252	245	291	246	300	414	232	345	398	448	421	488	375	313	537	425	382	327	262	295	41.5158	10.7278
43	R-420	TEL.RDG.	43	138	063	077	109	085	059	045	025	035	004	060	043	037	059	070	084	090	136	267	134	090	098	081	046	118	110	115	158	068	251	14.3728	7.0224
44	R-430	CLER.CHK.	44	092	044	065	088	051	065	045	014	-010	-012	038	-011	-023	-021	033	048	090	119	315	166	070	081	070	005	104	112	064	074	042	199	41.8102	13.7977
45	R-440	OBJ.INSP.	45	162	141	120	171	121	103	138	092	089	087	104	12	105	148	115	148	098	147	264	102	130	135	108	069	145	146	192	235	224	313	24.5995	6.6562
46	A-410	AR.COMP.	46	227	276	240	235	286	366	282	185	215	133	227	202	240	200	257	349	222	304	351	398	390	416	321	268	469	367	303	277	217	269	44.2029	10.1335
47	A-420	TEL.RDG.	47	093	035	049	072	058	050	033	006	011	-010	055	021	015	043	052	056	096	128	238	121	065	074	058	018	089	084	075	119	043	206	17.3525	7.7039
48	A-430	CLER.CHK.	48	049	-029	006	016	-008	021	-004	-025	-075	-042	-001	-055	-070	-067	-015	-024	075	069	239	098	027	013	016	-058	028	056	-017	008	-010	156	45.2378	13.9550
49	A-440	OBJ.INSP.	49	136	089	068	123	074	069	099	059	037	043	080	085	063	110	081	112	078	109	223	064	087	074	054	026	082	101	120	184	178	275	25.9409	6.6089
50	A-500	PREF.	50	114	-080	-027	-077	-062	-088	-082	-051	-111	-038	-031	-017	-049	-028	-064	-077	053	010	060	004	004	-073	-061	-060	-051	-079	-076	-003	-110	063	60.2728	23.1830
51	R-601	SOCIAB.	51	154	-027	-022	032	-017	-048	-071	-069	014	-060	-040	-039	-021	-007	041	-031	014	-018	100	047	060	025	001	015	037	-009	-014	000	-039	035	7.2901	2.8987
52	R-602	SOC.SENSI.	52	142	162	171	185	143	110	097	128	136	066	083	048	050	082	094	161	048	092	213	140	117	141	139	150	175	140	170	114	075	075	5.6762	2.2540
53	R-603	IMPULS.	53	075	136	158	140	133	066	113	131	081	097	103	106	070	041	102	148	-012	031	129	039	009	012	023	014	024	050	132	081	102	051	2.0418	1.7456
54	R-604	VIGOR	54	102	089	096	118	109	098	095	074	092	040	074	085	075	046	139	125	027	097	124	072	061	067	052	065	081	066	090	097	099	082	3.7563	2.1803
55	R-605	CALMNESS	55	120	162	144	170	156	156	132	108	118	062	108	107	102	095	122	181	074	092	159	130	110	144	125	113	161	150	140	136	094	110	4.9043	2.5747
56	R-606	TIDINESS	56	122	023	-003	052	024	007	-030	-031	011	-059	-016	-008	-023	028	-003	005	030	027	119	122	065	052	064	058	090	058	020	008	-030	061	6.6321	2.7336
57	R-607	CULTURE	57	137	168	193	227	180	169	140	145	123	054	061	065	061	082	102	121	052	090	200	143	104	151	150	125	175	179	157	100	076	070	6.1970	2.1949
58	R-608	LEADER.	58	056	112	131	161	139	184	151	111	097	070	088	038	041	041	137	158	037	104	171	116	041	116	092	061	114	176	105	103	073	086	1.4443	1.4382
59	R-609	SELF-CONF.	59	102	124	131	143	131	140	135	096	118	090	092	091	080	065	118	159	098	077	143	119	074	136	118	096	143	146	115	112	085	075	5.4995	2.6010
60	R-610	MATUR.	60	191	216	185	188	218	251	201	152	141	098	151	131	114	105	141	242	111	157	220	200	132	208	170	151	225	248	193	187	111	117	12.7063	5.2176

*Decimal points omitted.

TABLE 2-7k (continued)*

Var.	Code	Description		R-282	R-290	R-311	R-312	R-320	R-333	R-340	F-410	F-420	F-430	F-440	R-410	R-420	R-430	R-440	A-410	A-420	A-430	A-440	A-500	R-601	R-602	R-603	R-604	R-605	R-606	R-607	R-608	R-609	R-610	MEAN	S.D.
				31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60		
1	R-101	SCREEN.	1	147	192	189	157	189	086	176	207	154	156	172	248	138	092	162	227	093	049	136	114	154	142	075	102	120	122	137	056	102	131	11.7351	.7653
2	R-102	VOCAB.	2	437	510	604	573	648	437	641	349	077	192	177	342	063	044	141	276	035	-029	089	-080	-027	162	136	089	162	023	168	112	124	216	12.6560	4.0630
3	R-103	LIT.	3	351	442	509	525	572	407	572	297	089	175	157	286	077	069	120	240	049	006	068	-027	-022	171	158	096	144	-003	193	131	131	185	13.8063	4.7055
4	R-104	MUSIC	4	360	450	475	475	525	370	523	292	123	220	201	289	109	088	171	235	072	016	123	-077	032	185	140	118	170	052	227	161	143	188	7.0647	2.9488
5	R-105	SOC.STUD.	5	384	468	575	570	632	423	624	340	095	164	154	345	085	051	121	286	058	-008	074	-062	-017	143	133	109	146	024	180	139	131	218	14.4286	4.8297
6	R-106	MATH.	6	420	457	583	793	777	679	809	368	055	140	127	413	059	065	103	366	050	021	069	-088	-048	110	066	098	156	007	169	184	140	251	8.0301	5.3159
7	R-107	PHYS.SCI.	7	448	460	552	634	662	509	671	299	048	138	162	325	045	045	138	282	033	-004	099	-082	-071	097	113	095	132	-030	140	151	135	201	7.2339	3.9747
8	R-108	BIOL.SCI.	8	376	379	452	463	506	347	503	260	039	096	115	232	025	014	092	185	006	-025	059	-051	-069	128	131	074	108	-031	145	111	096	152	5.8239	2.2146
9	R-109	SCI.ATT.	9	368	420	492	408	491	312	481	287	052	136	128	273	035	-010	089	215	011	-075	037	-111	014	136	081	092	118	011	123	097	118	141	6.4668	1.8236
10	R-110	AERO.-SP.	10	313	267	321	332	362	323	379	134	017	057	102	150	004	-012	087	133	-010	-042	063	-038	-060	066	097	040	062	-059	054	070	090	098	2.7605	1.7256
11	R-111	ELEC.	11	328	292	389	425	452	366	463	217	053	112	118	252	060	038	104	227	055	-001	080	-031	-040	083	103	074	108	-016	061	088	092	151	5.7625	2.8054
12	R-112	MECH.	12	380	313	402	354	414	253	403	244	056	087	150	245	043	-011	124	202	021	-055	085	-017	-039	048	106	085	107	-008	065	038	091	131	8.4227	3.0197
13	R-113	FARM.	13	375	338	412	343	412	223	393	289	051	086	135	291	037	-023	105	240	015	-070	063	-049	-021	050	070	075	102	-023	061	041	080	114	7.7102	2.4208
14	R-114	HOME EC.	14	347	331	390	304	377	200	358	248	062	087	171	246	059	-021	148	200	043	-067	110	-028	-007	082	041	046	095	028	082	04	065	105	13.6168	3.2230
15	R-115	SPORTS	15	312	357	468	399	445	308	443	280	073	129	137	300	070	033	115	257	052	-015	081	-056	041	094	102	139	122	-003	132	13	118	141	5.9307	2.5202
16	R-190	INF.TOT.	16	518	558	670	691	754	540	754	398	095	191	206	414	084	048	168	349	056	-024	112	-077	-031	161	148	125	181	005	191	158	159	242	131.8455	33.5982
17	R-211	MEM./SEN.	17	180	210	267	277	301	183	292	191	066	096	108	237	090	090	098	222	096	075	078	053	014	048	-012	027	074	030	052	037	098	115	9.3551	3.1226
18	R-212	MEM./WDS.	18	330	386	432	407	462	315	458	310	112	193	170	345	134	119	147	304	128	069	109	010	-018	092	031	037	092	027	090	104	077	157	13.2587	5.6376
19	R-220	DISC.WDS.	19	312	430	425	398	453	290	444	355	241	386	281	398	267	315	264	351	238	239	223	060	100	213	129	124	159	119	200	171	143	220	17.4698	6.9302
20	R-231	SPELLING	20	165	288	405	397	442	256	426	395	119	265	128	448	134	166	102	398	121	098	064	004	047	140	039	072	130	122	143	116	119	200	11.0908	2.6585
21	R-232	CAP.	21	220	310	392	353	408	227	391	345	096	144	159	421	090	070	130	390	065	027	087	004	060	117	009	061	110	065	104	041	074	132	30.5815	2.7675
22	R-233	FUNCT.	22	401	481	587	575	641	395	624	461	102	204	180	488	098	081	135	416	074	013	074	-073	025	141	012	067	144	052	151	116	136	208	19.6393	4.1874
23	R-234	ENG.USAGE	23	318	382	468	476	522	331	511	353	086	168	149	375	081	070	108	321	058	016	054	-061	001	139	023	052	125	064	150	092	118	170	17.9170	3.0452
24	R-235	EF.EXP.	24	266	367	425	367	433	267	422	294	064	141	103	313	046	003	069	268	018	-058	026	-060	010	150	014	065	113	058	125	061	096	151	9.4828	1.9584
25	R-230	ENG.TOT.	25	367	481	599	576	647	392	629	487	122	239	191	537	118	104	145	469	089	028	082	-051	037	175	024	081	161	090	175	114	143	225	88.7115	11.4714
26	R-240	WD.FUNCT.	26	426	472	585	600	655	451	651	393	114	200	175	425	110	112	146	367	084	056	101	-079	-009	140	050	066	150	058	179	176	146	248	14.6335	5.5702
27	R-250	RD.COMP.	27	478	573	635	587	653	393	633	400	131	224	241	382	115	064	192	388	075	-017	120	-076	-014	170	132	090	140	020	157	105	115	193	33.2787	9.4243
28	R-260	CREAT.	28	456	466	506	446	521	336	512	311	164	195	262	327	158	074	235	277	119	008	184	-003	000	114	081	097	136	008	100	103	112	187	9.1457	3.8549
29	R-270	MECH.REAS.	29	570	525	506	474	539	390	540	257	076	143	248	262	068	042	224	217	043	-010	178	-110	-035	075	102	099	094	-030	076	073	085	111	8.7537	3.5333
30	R-281	VIS.2 DIM.	30	451	382	336	303	351	233	346	248	243	232	322	299	251	199	313	269	206	156	275	060	035	075	051	082	110	061	070	086	075	117	14.9801	5.6817
31	R-282	VIS.3 DIM.	31		520	469	431	494	340	491	256	154	134	283	255	134	051	252	208	086	006	196	-070	-047	043	050	062	085	-010	062	077	069	122	8.3986	3.0974
32	R-290	ABST.REAS.	32	520		528	467	545	347	534	333	179	217	316	310	154	089	272	241	095	018	200	-103	000	121	058	090	111	030	118	105	092	152	9.0617	2.9218
33	R-311	I.AR.REAS.	33	469	528		631	872	449	826	435	114	191	194	473	112	071	154	410	086	006	097	-102	-006	109	060	071	140	023	116	108	116	227	8.6808	3.5874
34	R-312	II.INEROD.	34	431	467	631		930	671	931	451	096	174	157	318	101	099	130	464	085	051	089	-061	-007	111	033	099	166	031	149	168	155	264	10.1147	4.7667
35	R-320	MATH.I+II.	35	494	545	872	930		636	979	491	115	200	191	551	117	096	155	487	096	035	102	-087	-007	122	049	096	171	031	149	157	153	274	18.7955	7.5608
36	R-333	III.ADV.	36	340	347	449	671	636		779	290	070	114	117	354	084	076	110	328	081	048	092	-061	-007	093	041	099	120	017	131	151	106	218	3.2568	2.4422
37	R-340	MATH.TOT.	37	491	534	826	981	979	779		475	112	192	186	540	117	098	155	482	098	041	107	-086	-028	123	051	104	170	029	159	167	152	279	22.0523	9.3074
38	F-410	AR.COMP.	38	256	333	436	451	491	290	475		213	235	189	804	205	109	143	543	153	037	079	011	078	072	-045	070	118	104	094	083	102	190	33.4348	17.9879
39	F-420	THL.RDG.	39	154	179	114	096	115	070	112	213		392	423	234	900	382	421	204	606	324	382	224	114	081	051	094	073	109	083	079	093	101	11.3930	7.9677
40	F-430	CLER.CHK.	40	134	217	191	174	200	114	192	235	392		330	288	407	787	335	268	337	581	311	135	108	124	067	113	116	118	125	115	105	151	31.5273	19.0982
41	F-440	OBJ.INSP.	41	283	316	194	157	191	117	186	189	423	330			251	428	350	962	242	342	311	835	187	097	091	072	111	098	084	111	096	095	107	23.2561	7.2881
42	R-410	AR.COMP.	42	255	310	473	518	551	354	540	804	234	286	251		300	247	243	936	305	195	212	103	123	115	006	147	168	139	135	155	152	267	41.5150	10.7278
43	R-420	THL.RDG.	43	134	154	112	101	117	084	117	205	900	407	428	300		480	440	302	892	447	456	301	129	088	067	105	080	118	088	111	102	128	14.3728	7.0224
44	R-430	CLER.CHK.	44	051	089	071	099	096	076	098	109	382	787	350	247	480		403	284	480	959	426	279	129	100	097	122	107	125	143	177	127	172	41.8102	13.7977
45	R-440	OBJ.INSP.	45	252	272	154	130	155	110	155	143	421	335	962	243	460	403		258	403	379	956	244	110	097	091	117	093	094	124	121	098	121	24.5995	6.6569
46	A-410	AR.COMP.	46	208	241	410	464	487	328	482	543	204	268	242	936	302	284	258		339	253	253	138	127	120	035	166	168	135	134	170	154	264	44.2029	10.1335
47	A-420	THL.RDG.	47	086	095	086	085	094	081	098	153	606	337	342	305	892	480	403	339		479	435	318	117	077	070	094	070	101	074	120	089	130	17.3525	7.7039
48	A-430	CLER.CHK.	48	006	018	006	051	035	048	041	037	324	581	311	195	447	959	379	253	479		420	307	120	086	098	109	087	110	131	101	120	158	45.2378	13.9550
49	A-440	OBJ.INSP.	49	196	200	097	089	102	092	107	079	382	311	835	212	456	426	954	253	435	420		285	115	094	104	113	091	096	127	138	092	126	25.9409	6.6089
50	A-500	PREF.	50	-070	-103	-102	-061	-087	-061	-086	011	224	133	187	103	301	279	244	138	318	307	285		126	078	145	083	061	092	072	075	084	085	60.2728	23.1830
51	R-601	SOCIAB.	51	-047	000	-006	-007	-067	-007	-008	078	114	108	097	123	129	129	110	127	117	120	115	128		439	146	092	332	315	359	339	385	325	7.2901	2.8987
52	R-602	SOC.SENSI.	52	043	121	109	111	122	093	123	072	081	124	091	115	088	108	097	120	077	086	094	078	439		144	347	551	436	581	355	271	513	5.6762	2.2540
53	R-603	IMPULS.	53	050	058	060	033	049	041	051	-045	051	067	072	006	067	097	091	035	070	098	104	145	146	144		242	056	-025	140	206	129	096	2.0418	1.7456
54	R-604	VIGOR	54	062	090	071	099	096	099	104	070	094	113	111	147	105	122	117	166	094	109	113	083	492	347	242		337	300	392	402	324	436	3.7563	2.1803
55	R-605	CALMNESS	55	085	111	140	166	171	120	170	118	073	116	088	166	080	107	093	168	070	087	091	061	332	551	056	337		481	515	364	408	562	4.9043	2.5747
56	R-606	TIDINESS	56	-010	030	023	031	031	017	029	104	109	118	084	139	118	125	095	135	101	110	096	092	315	436	-025	300	481		530	284	239	568	6.6321	2.7336
57	R-607	CULTURE	57	062	118	116	149	149	131	155	094	083	125	111	135	088	143	124	134	074	131	127	072	359	581	140	392	515	530		433	315	563	6.1970	2.1949
58	R-608	LEADER.	58	077	105	108	168	157	151	167	083	079	115	096	155	111	177	121	170	120	181	138	075	339	355	206	402	364	284	433		384	480	1.4443	1.4382
59	R-609	SELF-CONF.	59	069	092	116	155	153	106	152	102	093	105	095	152	102	127	098	154	089	120	092	084	385	271	129	324	408	239	315	384		392	5.4995	2.6010
60	R-610	MATUR.	60	122	152	227	264	274	218	279	190	101	151	107	267	128	172	121	264	130	158	126	085	325	513	096	436	562	568	563	480	352		12.7063	5.2176

*Decimal points omitted.

TABLE 2-7

Intercorrelations* Among 60 Project TALENT Test Score Variables
Grade-12 Students, Subsample 0 (N=6088)

Var.	Code	Description		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	MEAN	S.D.
1	R-101	SCREEN.	1		297	279	265	322	175	188	190	273	129	144	176	249	272	203	338	111	156	259	263	316	267	245	215	333	194	332	213	110	103	11.6447	.9541
2	R-102	VOCAB.	2	297		702	636	728	664	709	622	568	542	548	512	490	282	539	871	177	371	496	361	324	504	474	436	534	519	723	575	527	315	13.3144	3.9940
3	R-103	LIT.	3	279	702		661	714	593	592	533	492	426	367	297	368	301	456	777	170	380	491	406	320	509	470	425	542	519	701	476	335	203	13.8052	4.6852
4	R-104	MUSIC	4	265	636	661		597	505	490	430	444	348	306	220	303	355	376	678	139	349	514	396	304	476	445	393	512	471	611	445	269	196	6.7553	3.0154
5	R-105	SOC.STUD.	5	322	728	714	597		643	679	581	501	502	494	455	461	205	566	842	160	330	416	345	310	470	425	384	493	473	686	497	450	266	15.6048	5.0093
6	R-106	MATH.	6	175	664	593	505	643		756	520	445	530	582	468	340	110	530	814	156	331	381	299	243	478	402	352	457	553	572	486	544	322	9.6211	5.9622
7	R-107	PHYS.SCI.	7	188	709	592	490	679	756		621	465	629	694	582	431	095	553	858	144	282	342	221	222	395	370	318	391	454	583	516	617	326	8.7973	4.4586
8	R-108	BIOL.SCI.	8	190	622	533	430	581	520	621		430	480	501	484	484	190	396	718	138	243	306	195	216	338	338	295	352	383	527	456	480	262	6.3004	2.2806
9	R-109	SCI.ATT.	9	275	568	492	444	501	445	463	430		340	343	319	351	272	353	613	156	284	374	265	270	414	383	362	431	415	592	429	374	246	6.5025	1.8528
10	R-110	AERO.-SP.	10	129	542	426	348	502	530	629	480	340		672	599	345	-062	515	685	046	095	209	045	103	167	210	194	180	213	414	442	592	274	3.9170	2.4147
11	R-111	ELEC.	11	144	548	367	306	494	582	694	501	343	672		699	382	-043	488	723	052	084	180	028	097	165	185	171	164	212	374	461	645	318	8.1143	4.4356
12	R-112	MECH.	12	176	512	297	220	455	468	582	484	319	599	699		505	-070	518	663	048	054	158	-014	085	098	147	130	112	147	332	437	651	330	11.0624	3.9511
13	R-113	FARM.	13	249	490	368	303	461	340	431	484	351	345	382	505		232	370	585	142	216	246	168	207	286	278	229	300	273	421	401	415	246	8.1220	2.3225
14	R-114	HOME EC.	14	272	282	301	355	205	110	095	190	272	-062	-043	-070	232		-052	281	188	284	294	315	276	378	310	270	398	314	341	263	-059	049	11.4313	3.7772
15	R-115	SPORTS	15	203	539	456	376	566	530	553	396	353	515	488	518	373	-052		669	045	153	251	161	155	207	228	213	242	252	435	382	469	273	7.3441	3.0843
16	R-190	INF.TOT.	16	338	871	777	678	842	814	858	718	613	685	723	663	585	281	669		181	358	478	336	324	508	478	427	529	541	744	634	638	367	142.3349	37.1269
17	R-211	MEM./SEN.	17	111	177	170	139	160	156	144	138	156	046	052	048	142	188	045	181		350	145	202	261	267	246	211	304	217	243	222	101	119	8.9962	3.0622
18	R-212	MEM./WDS.	18	156	371	380	349	330	331	282	243	284	095	084	054	216	284	153	358	350		386	398	313	459	386	342	486	432	428	313	140	169	12.2171	5.5527
19	R-220	DISG.WDS.	19	259	496	491	514	416	381	342	305	374	209	180	158	246	294	251	478	145	386		505	318	512	460	426	563	492	565	450	245	277	16.5563	7.0468
20	R-231	SPELLING	20	263	361	406	396	345	299	221	195	265	045	028	-014	168	315	161	336	202	398	505		467	586	504	423	752	444	454	271	011	095	10.3032	2.9889
21	R-232	CAP.	21	316	324	320	304	310	243	222	216	270	105	097	085	207	276	155	324	261	313	318	467		562	535	466	777	317	384	262	122	151	30.0000	3.4450
22	R-233	FUNCT.	22	267	504	509	476	470	478	395	338	414	167	165	098	286	378	207	508	267	459	512	586	562		629	530	874	622	583	393	221	221	18.5803	4.5045
23	R-234	ENG.USAGE	23	245	474	470	445	425	402	370	338	383	210	185	147	278	310	228	478	246	386	460	504	535	629		534	814	483	525	369	217	195	17.4387	3.2998
24	R-235	EF.EXP.	24	215	436	425	393	384	352	318	295	362	194	171	130	229	270	213	427	211	342	426	423	466	530	530		702	410	526	366	206	207	9.2334	2.1312
25	R-230	ENG.TOT.	25	333	534	542	512	493	457	391	352	431	180	164	112	300	398	242	529	304	486	563	752	777	874	814	702		590	626	420	200	221	85.5557	13.0412
26	R-240	WD.FUNCT.	26	194	519	519	471	475	553	454	383	415	213	212	147	273	314	252	541	217	432	492	444	317	622	483	410	590		599	449	295	249	10.8883	5.4359
27	R-250	RD.COMP.	27	332	723	701	611	686	572	583	527	582	414	374	332	421	341	435	744	243	428	565	454	384	583	525	526	626	599		604	422	297	22.9745	9.8998
28	R-260	CREAT.	28	213	575	476	445	497	486	516	456	429	442	461	437	401	263	382	634	222	313	450	271	262	393	369	366	420	449	604		516	354	9.6266	4.0677
29	R-270	MECH.REAS.	29	110	527	335	269	450	544	617	480	374	592	645	651	415	-059	469	638	101	140	245	011	122	221	217	206	200	295	422	516		483	11.0069	4.3873
30	R-281	VIS.2 DIM.	30	103	315	203	196	266	322	326	262	246	274	315	330	246	049	273	367	119	169	277	095	151	221	195	207	221	249	297	354	483		13.2300	5.8266
31	R-282	VIS.3 DIM.	31	092	424	306	287	373	448	466	377	331	392	429	413	327	144	277	507	135	223	255	090	170	304	256	248	276	352	416	472	596	478	9.0414	3.3030
32	R-290	ABST.REAS.	32	162	504	430	415	456	495	478	368	416	331	336	298	301	193	331	547	172	324	404	266	276	441	368	365	439	454	559	483	502	397	9.2631	2.9297
33	R-311	I.AR.REAS.	33	211	621	507	443	587	639	586	462	495	418	455	420	395	215	436	686	214	383	404	354	371	536	463	435	552	529	612	516	501	348	9.2254	3.6476
34	R-312	II.INTROD.	34	172	605	531	458	592	826	670	458	428	449	488	387	307	127	471	716	197	347	381	351	328	539	446	390	530	561	561	473	496	334	11.1559	5.3490
35	R-320	MATH.I+II.	35	204	665	567	492	642	816	692	500	495	475	516	435	373	177	497	766	222	384	424	383	376	585	493	444	586	596	633	533	542	369	20.3812	8.2722
36	R-333	III.ADV.	36	119	499	440	388	480	745	589	385	356	443	460	335	219	061	420	614	128	272	303	252	229	395	340	306	391	446	434	399	449	291	3.8745	2.8845
37	R-340	MATH.TOT.	37	193	659	566	492	635	844	704	498	486	494	531	433	353	156	505	769	209	376	416	370	358	567	480	432	567	590	615	528	513	369	24.2557	10.5392
38	F-410	AR.COMP.	38	215	335	287	281	340	368	286	205	280	137	151	142	225	196	260	364	185	279	326	387	345	444	354	314	474	373	410	268	179	205	32.5000	19.2215
39	F-420	TEL.RDG.	39	122	082	112	117	100	082	053	032	063	015	025	026	048	085	063	098	068	113	222	129	108	128	106	104	146	117	157	136	068	202	10.8285	9.1482
40	F-430	CLER.CHK.	40	171	151	179	206	130	113	076	054	113	-013	-020	-038	046	135	070	132	096	209	383	307	184	239	203	181	282	217	236	148	028	187	28.1776	20.2510
41	F-440	OBJ.INSP.	41	127	130	139	178	095	094	095	073	113	047	045	042	072	149	077	138	106	150	261	120	139	153	137	105	169	153	203	218	166	282	22.5867	7.7529
42	R-410	AR.COMP.	42	267	343	298	284	349	414	309	200	274	134	170	152	237	189	287	384	229	324	383	443	409	482	378	328	526	404	477	297	187	251	41.1703	10.9089
43	R-420	TEL.RDG.	43	115	062	089	094	081	082	038	015	028	-003	023	022	031	058	068	078	076	117	252	122	084	103	085	055	116	110	105	119	064	218	14.1572	7.6361
44	R-430	CLER.CHK.	44	110	008	060	082	011	033	-024	-034	-014	-087	-086	-101	-043	072	004	-003	086	130	312	197	095	105	087	041	135	126	069	036	-035	166	39.9760	14.4013
45	R-440	OBJ.INSP.	45	123	098	108	149	065	070	065	051	077	028	030	028	049	133	061	105	101	131	248	093	116	113	104	069	128	127	155	193	150	278	24.0230	7.0502
46	A-410	AR.COMP.	46	236	268	234	219	273	344	251	151	206	101	141	123	189	140	236	306	203	276	327	373	352	392	304	259	434	328	269	232	148	220	44.0604	10.6248
47	A-420	TEL.RDG.	47	072	021	037	041	036	055	011	-008	-017	-022	014	011	005	012	051	033	060	084	203	075	032	044	037	-013	048	068	020	064	040	166	17.4859	8.9471
48	A-430	CLER.CHK.	48	064	-059	-003	012	-044	-009	-066	-068	-070	-107	-103	-114	-076	018	-027	-064	068	073	231	115	039	027	020	-029	047	065	-018	-020	-058	131	43.9088	14.7774
49	A-440	OBJ.INSP.	49	106	053	064	102	026	036	032	070	030	003	011	011	019	102	036	058	085	096	208	053	079	058	056	023	071	085	085	146	117	245	25.4593	7.0620
50	A-500	PREF.	50	129	-089	-046	-085	-070	-094	-085	-098	-099	-054	-058	-013	-034	-046	-024	-083	033	-015	033	-013	-005	-085	-084	-104	-072	-090	-102	-047	-077	019	60.7848	24.9283
51	R-601	SOCIAB.	51	182	-005	021	072	-010	-032	-073	-054	018	-083	-100	-067	-011	092	051	-018	020	035	134	102	073	071	039	043	084	030	028	009	-087	-004	6.9322	2.9484
52	R-602	SOC.SENSI.	52	165	114	173	217	090	057	015	051	122	-028	-066	-111	007	233	-025	087	065	140	237	200	143	204	165	166	223	183	173	086	-076	-002	5.0532	2.3601
53	R-603	IMPULS.	53	095	115	126	105	097	043	067	086	071	074	051	078	053	038	085	110	-001	018	122	049	014	019	019	008	028	037	104	069	050	038	2.0368	1.7174
54	R-604	VIGOR	54	136	117	113	129	121	117	102	087	089	067	059	086	102	058	165	145	015	046	133	086	071	082	068	072	096	073	103	094	068	070	3.7973	2.1723
55	R-605	CALMNESS	55	168	173	170	186	147	167	131	113	129	081	085	058	100	145	088	185	078	114	171	151	123	178	144	134	187	165	153	143	075	086	4.7438	2.5621
56	R-606	TIDINESS	56	157	035	054	113	014	015	-050	-043	023	-089	-090	-111	-033	179	-058	004	047	085	148	178	108	137	106	093	158	107	066	019	-111	-001	6.0269	2.8486
57	R-607	CULTURE	57	137	062	145	209	047	038	-027	025	055	-112	-140	-166	-011	249	-058	037	065	119	179	183	117	190	147	125	196	174	109	033	-139	-032	5.4795	2.3925
58	R-608	LEADER.	58	073	116	139	165	123	169	121	090	087	047	048	020	029	059	127	143	027	093	163	117	053	126	089	062	117	163	103	092	031	057	1.4225	1.4320
59	R-609	SELF-CONF.	59	147	156	162	172	139	152	134	120	130	090	094	078	083	108	105	178	084	102	163	134	097	157	126	114	161	154	153	131	067	065	5.4134	2.5157
60	R-610	MATUR.	60	169	191	177	185	166	209	149	119	130	065	087	057	098	160	064	198	074	140	214	197	137	219	170	149	224	235	184	164	047	075	12.2339	5.3116

*Decimal points omitted.

TABLE 2-71 (continued)*

Var.	Code	Description		R-282	VIS.3 DIM. R-290	ABST.REAS. R-311	I.AR.REAS. R-312	II.INTROD. R-320	MATH.I+II. R-333	III.ADV. R-340	MATH.TOT. F-410	AR.COMP. F-420	TEL.RDG. F-430	CLER.CHK. F-440	OBJ.INSP. R-410	AR.COMP. R-420	TEL.RDG. R-430	CLER.CHK. R-440	OBJ.INSP. A-410	AR.COMP. A-420	TEL.RDG. A-430	CLER.CHK. A-440	OBJ.INSP. A-500	PREF. R-601	SOCIAB. R-602	SOC.SENSI. R-603	IMPULS. R-604	VIGOR R-605	CALMNESS R-606	TIDINESS R-607	CULTURE R-608	LEADER. R-609	SELF-CONF. R-610	MATUR.
				31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	R-101	SCREEN.	1	092	162	211	172	204	119	193	215	122	171	127	267	115	110	123	236	072	064	106	129	182	165	095	136	168	157	137	073	147	169
2	R-102	VOCAB.	2	424	504	621	605	665	499	659	335	082	151	130	343	062	008	098	268	021	-059	053	-089	-005	114	115	117	173	035	062	116	156	191
3	R-103	LIT.	3	306	430	507	531	567	440	566	287	112	179	139	298	089	060	108	234	037	-003	064	-046	021	173	126	113	170	054	145	139	162	177
4	R-104	MUSIC	4	297	415	443	458	492	388	492	281	117	206	178	284	094	082	149	219	041	012	102	-085	072	217	105	129	186	113	209	165	172	185
5	R-105	SOC.STUD.	5	373	456	587	592	642	480	633	340	100	130	095	349	081	011	065	273	036	-044	026	-070	-010	080	097	121	147	014	047	123	139	166
6	R-106	MATH.	6	448	495	639	826	816	745	844	368	083	113	094	414	082	033	070	344	055	-009	036	-094	-032	057	043	117	167	015	038	169	152	209
7	R-107	PHYS.SCI.	7	466	478	586	670	692	589	704	286	053	076	095	309	038	-024	068	251	011	-066	032	-085	-073	015	067	102	131	-050	-027	121	134	149
8	R-108	BIOL.SCI.	8	377	368	462	458	500	385	498	205	032	054	073	200	015	-034	051	151	-008	-068	020	-058	-054	051	086	087	113	-043	025	090	120	119
9	R-109	SCI.ATT.	9	331	416	495	428	495	356	486	280	063	113	113	270	028	-014	077	206	-017	-070	030	-099	018	122	071	089	129	023	055	087	130	130
10	R-110	AERO.-SP.	10	392	331	418	449	475	443	494	137	015	-013	047	136	-003	-087	028	101	-022	-107	003	-054	-083	-028	074	067	081	-089	-112	047	090	065
11	R-111	ELEC.	11	429	336	455	488	516	460	531	151	025	-020	045	170	023	-086	030	141	014	-103	011	-058	-100	-066	051	059	085	-090	-140	048	094	087
12	R-112	MECH.	12	413	298	420	387	435	335	433	142	026	-038	042	152	022	-101	028	123	011	-114	011	-013	-067	-111	078	086	058	-111	-166	020	078	057
13	R-113	FARM.	13	327	301	395	307	373	219	353	225	048	046	072	237	031	-043	049	189	005	-076	019	-034	-011	007	053	102	100	-033	-011	029	083	098
14	R-114	HOME EC.	14	144	193	215	127	177	061	156	196	085	165	149	189	058	072	133	140	012	010	102	-046	092	233	038	058	145	179	249	059	108	160
15	R-115	SPORTS	15	277	331	436	471	497	420	505	260	063	070	077	287	068	004	061	236	051	-027	036	-024	031	-025	085	165	088	-058	-058	127	105	064
16	R-190	INF.TOT.	16	507	547	686	716	766	614	769	364	098	132	138	384	078	-003	105	306	033	-064	058	-083	-010	087	110	145	185	004	037	143	178	198
17	R-211	MEM./SEN.	17	135	172	214	197	222	128	209	185	068	096	106	229	076	086	101	203	060	068	085	033	020	065	-001	015	078	047	065	027	084	074
18	R-212	MEM./WDS.	18	223	324	363	347	384	272	376	279	113	209	150	324	117	130	131	276	084	073	096	-015	035	140	018	046	114	085	119	093	102	140
19	R-220	DISG.WDS.	19	255	404	404	381	424	303	416	326	222	383	261	383	252	312	246	327	203	231	208	033	134	237	122	133	171	148	179	163	163	214
20	R-231	SPELLING	20	090	266	354	351	383	252	370	287	129	307	120	443	122	197	093	373	075	115	053	-013	102	200	049	086	151	178	183	117	134	197
21	R-232	CAP.	21	170	276	371	328	376	229	358	345	108	184	139	409	084	095	116	352	032	039	079	-005	073	143	014	071	123	108	117	053	097	137
22	R-233	PUNCT.	22	304	441	536	539	585	395	567	444	128	239	153	482	103	105	113	392	044	027	058	-085	071	204	019	082	178	137	190	126	157	219
23	R-234	ENG.USAGE	23	256	368	463	446	493	340	480	354	106	203	137	378	085	087	104	304	037	020	056	-084	039	165	019	068	144	106	147	089	126	170
24	R-235	EF.EXP.	24	248	365	435	390	444	306	432	314	104	181	105	328	055	041	069	259	-013	-029	023	-104	043	166	008	072	134	093	125	062	114	149
25	R-230	ENG.TOT.	25	276	439	552	530	586	391	567	474	146	282	169	526	116	135	128	424	048	047	071	-072	084	223	028	096	187	158	196	117	161	224
26	R-240	WD.FUNCT.	26	352	454	529	561	596	446	590	373	117	217	153	404	110	126	127	328	068	065	085	-090	030	183	037	073	165	107	174	163	154	235
27	R-250	RD.COMP.	27	416	559	612	561	633	434	615	410	157	236	203	377	105	069	155	269	020	-018	085	-102	028	173	104	103	153	066	109	103	153	184
28	R-260	CREAT.	28	472	483	516	473	533	399	528	288	136	148	218	297	119	036	193	232	064	-020	146	-047	009	086	069	094	143	019	033	092	131	164
29	R-270	MECH.REAS.	29	596	502	501	496	542	449	548	179	088	028	166	187	064	-035	150	140	040	-058	117	-077	-087	-076	050	068	075	-111	-139	031	067	047
30	R-281	VIS.2 DIM.	30	478	397	348	334	369	291	369	205	202	187	282	251	218	166	278	220	166	131	245	019	-004	-002	038	070	086	-001	-032	057	065	075
31	R-282	VIS.3 DIM.	31		531	472	444	495	382	493	219	124	083	243	214	100	011	215	161	043	-024	164	-091	-074	-014	022	037	075	-039	-039	052	060	086
32	R-290	ABST.REAS.	32	531		534	506	563	410	554	330	150	190	268	314	122	070	230	232	055	004	165	-116	-008	086	029	077	110	029	044	089	090	123
33	R-311	I.AR.REAS.	33	472	534		679	880	539	839	426	113	154	132	471	105	038	096	388	064	-021	047	-108	-003	063	043	090	147	018	017	107	131	191
34	R-312	II.INTROD.	34	444	506	679		946	745	946	438	106	146	113	512	105	060	086	437	071	011	048	-088	-003	064	021	102	162	036	038	157	155	209
35	R-320	MATH.I+II.	35	495	563	880	946		719	982	471	118	162	131	539	114	056	098	454	075	-002	051	-105	-004	069	033	105	170	031	032	149	158	219
36	R-333	III.ADV.	36	382	410	539	745	719		838	308	086	106	094	383	100	052	080	339	082	019	057	-070	-001	049	035	112	149	013	030	150	134	133
37	R-340	MATH.TOT.	37	493	554	839	946	982	838		454	116	156	129	528	117	058	099	449	081	004	056	-101	-003	068	035	114	174	028	033	158	161	222
38	F-410	AR.COMP.	38	219	330	426	438	471	308	454		251	267	177	750	200	116	124	423	085	029	053	-025	091	078	-021	087	112	124	077	077	093	170
39	F-420	TEL.RDG.	39	124	150	113	106	118	086	116	251		383	400	252	848	349	383	194	425	279	325	149	103	072	036	067	084	097	078	059	080	088
40	F-430	CLER.CHK.	40	083	190	154	146	162	106	156	267	383		328	318	397	756	332	274	287	525	302	102	140	152	058	101	119	149	153	100	114	148
41	F-440	OBJ.INSP.	41	243	268	132	113	131	094	129	177	400	328		244	409	346	956	227	289	299	811	144	089	094	073	080	078	076	097	085	080	086
42	R-410	AR.COMP.	42	214	314	471	512	539	383	528	750	252	318	244		317	288	240	917	283	229	211	100	141	113	034	162	171	156	113	158	149	249
43	R-420	TEL.RDG.	43	100	122	105	105	114	100	117	200	848	397	409	317		487	447	313	840	452	444	253	122	078	063	091	092	097	076	094	091	110
44	R-430	CLER.CHK.	44	011	070	038	060	056	052	058	116	340	756	346	288	487		412	324	475	954	442	256	156	139	097	119	115	147	166	156	117	164
45	R-440	OBJ.INSP.	45	215	230	096	086	098	080	099	124	383	332	956	240	447	412		253	372	383	947	206	102	103	093	093	087	085	109	106	086	099
46	A-410	AR.COMP.	46	161	232	388	437	454	339	449	423	194	274	227	917	313	324	253		336	296	257	152	138	108	059	169	167	138	108	171	147	239
47	A-420	TEL.RDG.	47	043	055	064	071	075	082	081	085	425	287	289	283	840	475	372	336		486	425	280	103	059	070	087	071	066	050	100	074	099
48	A-430	CLER.CHK.	48	-024	004	-021	011	-002	019	004	029	279	525	299	229	452	954	383	296	486		437	286	139	111	099	103	095	123	146	157	100	146
49	A-440	OBJ.INSP.	49	164	165	047	048	051	057	056	053	325	302	811	211	444	442	947	257	425	437		253	105	103	107	097	089	087	111	118	084	104
50	A-500	PREF.	50	-091	-116	-108	-088	-105	-070	-101	-025	149	102	144	100	253	256	206	152	280	286	253		149	071	174	105	092	083	085	095	073	099
51	R-601	SOCIAB.	51	-074	-008	-003	-003	-004	-001	-003	091	103	140	089	141	122	156	102	138	103	139	105	149		483	201	491	372	364	403	364	361	375
52	R-602	SOC.SENSI.	52	-014	086	063	064	069	049	068	078	072	152	094	113	078	139	103	108	059	111	103	071	483		175	373	552	493	602	372	274	538
53	R-603	IMPULS.	53	022	029	043	021	033	035	035	-021	036	058	073	034	063	097	093	059	070	099	107	174	201	175		239	100	031	158	233	132	146
54	R-604	VIGOR	54	037	077	090	102	105	112	114	087	067	101	080	162	091	119	093	169	087	108	097	105	491	373	239		376	353	382	420	311	495
55	R-605	CALMNESS	55	075	110	147	162	170	149	174	112	084	119	078	171	092	115	087	167	071	095	089	092	372	552	100	376		480	491	362	422	577
56	R-606	TIDINESS	56	-039	029	018	036	031	013	028	124	097	149	076	156	097	147	085	138	066	123	087	083	364	493	031	353	480		566	304	259	591
57	R-607	CULTURE	57	-039	044	017	038	032	030	033	077	078	153	097	113	076	166	109	108	050	146	111	085	403	602	158	382	491	566		416	299	548
58	R-608	LEADER.	58	052	089	107	157	149	150	158	077	059	100	085	158	094	156	106	171	100	157	118	095	364	372	233	420	362	304	416		351	482
59	R-609	SELF-CONF.	59	060	090	131	155	158	134	161	093	080	114	080	149	091	117	086	147	074	100	084	073	361	274	132	311	422	259	299	351		401
60	R-610	MATUR.	60	086	123	191	209	219	183	222	170	088	148	086	249	110	164	099	239	099	146	104	099	375	536	146	495	577	591	548	482	401	

*Decimal points omitted.

TABLE 2-8a

Means and Standard Deviations for 60 Project TALENT Score Variables
by Grade and Sex; Subsample 0[a]

Variable	Information Test	Gr. 9 Boys (N = 3915)		Gr. 10 Boys (N = 3846)		Gr. 11 Boys (N = 3619)		Gr. 12 Boys (N = 3027)		Gr. 9 Girls (N = 3864)		Gr. 10 Girls (N = 3727)		Gr. 11 Girls (N = 3557)		Gr. 12 Girls (N = 3061)	
		Mean	s	Mean	s	Mean	s	Mean	s	Mean	s	Mean	s	Mean	s	Mean	s
1	R-101 Screening	10.89	1.78	11.24	1.46	11.44	1.26	11.55	1.11	11.36	1.32	11.58	.99	11.65	.87	11.74	.77
2	R-102 Vocabulary	10.80	4.15	12.13	4.11	13.27	3.97	13.98	3.81	9.76	3.98	10.98	4.06	11.78	4.09	12.66	4.06
3	R-103 Literature	10.06	4.20	11.75	4.42	13.02	4.53	13.80	4.67	9.78	3.85	11.51	4.21	12.59	4.38	13.81	4.71
4	R-104 Music	4.79	2.82	5.40	2.89	5.97	3.00	6.44	3.05	5.40	2.90	5.97	2.91	6.53	2.96	7.06	2.95
5	R-105 Social Studies	12.72	5.65	14.13	5.53	16.11	5.28	16.59	5.00	11.24	4.98	12.29	4.96	14.15	5.11	14.63	4.83
6	R-106 Mathematics	6.98	3.92	8.72	4.86	10.48	5.97	11.23	6.15	6.31	3.51	7.42	4.34	7.85	5.10	8.03	5.32
7	R-107 Physical Sci.	8.32	3.87	8.79	3.95	9.68	4.14	10.38	4.36	6.87	3.46	6.96	3.44	6.98	3.72	7.23	3.97
8	R-108 Biological Sci.	5.34	2.44	6.37	2.40	6.68	2.27	6.78	2.25	4.58	2.28	5.62	2.27	5.74	2.21	5.82	2.21
9	R-109 Scientific Att.	5.10	2.05	5.70	1.98	6.13	1.93	6.54	1.88	5.21	1.97	5.74	1.96	6.07	1.89	6.47	1.82
10	R-110 Aero. and Space	4.05	2.34	4.43	2.38	4.80	2.39	5.09	2.45	2.52	1.60	2.57	1.63	2.62	1.69	2.76	1.73
11	R-111 Elec. and Electr.	7.69	3.97	8.72	4.19	9.63	4.24	10.49	4.51	5.17	2.54	5.34	2.50	5.51	2.63	5.76	2.81
12	R-112 Mechanics	10.39	3.59	11.64	3.45	12.81	3.25	13.53	3.17	6.90	2.79	7.41	2.81	7.95	2.93	8.62	3.02
13	R-113 Farming	7.08	2.62	7.80	2.44	8.21	2.25	8.54	2.14	6.52	2.59	7.01	2.58	7.34	2.48	7.71	2.42
14	R-114 Home Economics	7.34	2.91	8.19	2.96	8.81	2.93	9.22	2.91	11.11	3.38	12.22	3.34	12.88	3.27	13.62	3.22
15	R-115 Sports	6.77	3.13	7.63	3.07	8.28	2.99	8.77	2.94	4.61	2.32	5.20	2.40	5.53	2.45	5.93	2.52
16	R-190 Info.Total (I)	118.35	38.00	132.63	37.76	145.32	37.74	152.94	37.52	107.36	31.33	117.80	31.82	125.18	33.33	131.85	33.60
	Other Tests																
17	R-211 Mem. for Sent.	8.43	3.09	8.63	2.99	8.70	2.98	8.63	2.96	9.17	3.05	9.39	3.02	9.34	3.09	9.36	3.12
18	R-212 Mem. for Words	9.64	4.76	10.24	4.91	10.89	5.19	11.16	5.26	10.84	5.01	11.82	5.48	12.70	5.57	13.06	5.64
19	R-220 Disguised Words	12.00	6.28	13.25	6.68	14.03	6.96	15.63	7.04	13.13	6.51	14.69	6.83	16.25	7.15	17.47	6.93
20	R-231 Spelling	7.54	2.96	8.28	3.05	8.97	2.97	9.51	3.09	9.03	2.81	9.72	2.73	10.38	2.69	11.09	2.66
21	R-232 Capitalization	27.53	4.90	28.40	4.52	29.07	3.97	29.41	3.93	29.07	4.06	29.75	3.45	30.16	3.13	30.58	2.77
22	R-233 Punctuation	14.98	4.71	15.90	4.65	16.90	4.49	17.51	4.56	16.95	4.54	17.90	4.44	18.78	4.29	19.64	4.19
23	R-234 English Usage	14.88	3.78	15.64	3.56	16.35	3.37	16.96	3.47	16.02	3.21	16.76	3.11	17.27	3.08	17.92	3.05
24	R-235 Expression	7.24	2.60	7.84	2.60	8.49	2.37	8.98	2.27	8.06	2.27	8.64	2.18	[illegible]	2.06	9.48	1.96
25	R-230 English Total	72.16	15.14	76.07	14.59	79.79	13.37	82.36	13.74	79.14	13.04	82.77	12.39	85.67	11.66	88.71	11.47
26	R-240 Word Functions	7.92	4.54	8.89	5.03	9.69	5.13	10.13	5.19	9.05	5.08	10.3[illegible]	5.49	10.97	5.50	11.63	5.57
27	R-250 Reading Comp.	23.99	11.14	27.40	11.10	30.64	10.69	32.67	10.35	25.64	10.33	28.89	10.17	30.99	9.91	33.28	9.42
28	R-260 Creativity	7.41	3.76	8.46	4.01	9.45	4.13	10.11	4.22	7.03	3.45	7.81	3.64	8.44	3.78	9.15	3.85
29	R-270 Mech. Reason.	11.00	4.05	11.92	4.20	12.81	4.07	13.29	3.94	7.72	3.30	8.12	3.50	8.55	3.52	8.75	3.56
30	R-281 Visual. 2-Dim.	12.62	5.63	13.55	5.74	14.25	5.77	14.49	5.70	10.74	5.44	11.58	5.58	11.56	5.63	11.98	5.68
31	R-282 Visual. 3-Dim.	7.92	3.23	8.62	3.36	9.27	3.35	9.69	3.38	7.27	2.86	7.72	3.02	8.05	3.04	8.40	3.10
32	R-290 Abstract Reason.	7.94	3.15	8.49	3.10	9.15	3.03	9.47	2.92	7.88	3.18	8.27	3.09	8.69	3.04	9.06	2.92

See footnote on next page.

TABLE 2-8a (continued)

Variable	Other Tests	Gr. 9 Boys (N = 3915) Mean	s	Gr. 10 Boys (N = 3846) Mean	s	Gr. 11 Boys (N = 3619) Mean	s	Gr. 12 Boys (N = 3027) Mean	s	Gr. 9 Girls (N = 3864) Mean	s	Gr. 10 Girls (N = 3727) Mean	s	Gr. 11 Girls (N = 3557) Mean	s	Gr. 12 Girls (N = 3061) Mean	s
33	R-311 Math I	7.27	3.42	8.07	3.46	9.07	3.52	9.78	3.63	7.02	3.28	7.55	3.44	8.02	3.52	8.68	3.59
34	R-312 Math II	9.20	4.17	10.25	4.63	11.55	5.41	12.21	5.69	9.36	3.93	9.85	4.24	10.00	4.59	10.11	4.77
35	R-320 Math I + II	16.47	6.94	18.31	7.42	20.61	8.26	21.98	8.64	16.38	6.53	17.40	6.91	18.02	7.35	18.80	7.56
36	R-333 Math III	2.42	1.64	3.01	1.95	4.00	2.71	4.50	3.15	2.15	1.53	2.65	1.75	3.02	2.20	3.26	2.44
37	R-340 Math Total	18.88	7.53	21.32	8.59	24.61	10.38	26.48	11.22	18.53	7.00	20.05	7.83	21.04	8.82	22.05	9.31
38	F-410 Arith. Comp.	19.06	29.32	22.94	24.74	28.09	22.01	31.53	20.35	25.70	23.41	28.01	19.99	31.20	18.13	33.45	17.99
39	F-420 Table Reading	3.65	12.39	6.70	11.67	9.36	10.76	10.26	10.17	6.70	9.08	8.94	8.51	10.49	7.95	11.39	7.97
40	F-430 Clerical Check	13.59	23.00	19.69	22.24	23.34	21.40	24.79	20.82	21.03	21.01	26.10	20.03	28.89	19.59	31.53	19.10
41	F-440 Object Inspect	17.92	9.01	19.85	8.61	21.39	8.34	21.91	8.14	19.58	7.92	21.51	7.56	22.28	7.73	23.26	7.29
42	R-410 Arith. Comp.	33.68	10.23	35.49	9.91	38.74	10.66	40.82	11.08	36.42	10.70	37.64	10.45	39.79	10.79	41.52	10.73
43	R-420 Table Reading	9.81	6.80	11.50	7.83	13.12	8.49	13.94	8.21	10.39	6.11	12.12	6.73	13.39	6.92	14.37	7.02
44	R-430 Clerical Check	32.43	13.88	35.38	14.83	37.50	14.99	38.12	14.76	35.63	14.13	38.90	14.35	40.67	14.30	41.81	13.80
45	R-440 Object Inspect	20.23	7.08	21.74	7.34	23.01	7.52	23.44	7.38	21.43	6.65	23.09	6.83	23.80	6.90	24.60	6.66
46	A-410 Arith. Comp.	38.55	11.79	39.67	10.60	42.29	10.98	43.92	11.10	40.00	10.67	40.85	10.15	42.66	10.39	44.20	10.13
47	A-420 Table Reading	15.96	13.63	16.30	11.88	16.88	10.57	17.62	10.05	14.08	9.03	15.29	8.38	16.29	7.82	17.35	7.70
48	A-430 Clerical Check	38.71	16.01	40.61	15.87	42.22	15.80	42.56	15.45	40.50	14.99	43.16	14.71	44.59	14.71	45.24	13.96
49	A-440 Object Inspect	22.55	7.47	23.62	7.54	24.63	7.60	24.97	7.46	23.29	6.82	24.67	6.86	25.31	6.87	25.94	6.61
	S.A.I.																
50	A-500 Preferences	58.19	27.25	59.12	25.58	59.60	25.07	61.30	26.57	56.69	21.80	58.44	21.90	59.33	22.07	60.27	23.18
51	R-501 Sociability	5.55	2.83	5.92	2.87	6.27	3.00	6.57	2.95	6.67	2.90	6.96	2.91	7.30	2.86	7.29	2.90
52	R-602 Social Sensit.	3.57	2.17	3.73	2.22	4.11	2.32	4.42	2.30	4.53	2.31	4.99	2.31	5.38	2.30	5.68	2.25
53	R-603 Impulsiveness	1.78	1.53	1.88	1.57	1.94	1.63	2.03	1.69	1.79	1.59	1.96	1.68	2.06	1.70	2.04	1.75
54	R-604 Vigor	3.35	2.06	3.53	2.08	3.70	2.12	3.84	2.16	3.44	2.13	3.51	2.15	3.72	2.20	3.76	2.18
55	R-605 Calmness	3.42	2.27	3.72	2.34	4.21	2.54	4.58	2.54	3.76	2.44	4.11	2.46	4.59	2.59	4.90	2.57
56	R-606 Tidiness	4.64	2.67	4.84	2.73	5.17	2.80	5.41	2.83	5.62	2.72	5.97	2.74	6.41	2.76	6.63	2.73
57	R-607 Culture	4.18	2.29	4.34	2.28	4.58	2.32	4.75	2.37	5.16	2.23	5.55	2.21	5.90	2.20	6.20	2.19
58	R-608 Leadership	1.19	1.29	1.16	1.27	1.25	1.35	1.40	1.43	1.23	1.31	1.24	1.33	1.34	1.38	1.44	1.44
59	R-609 Self-Confidence	4.56	2.23	4.84	2.31	5.21	2.44	5.33	2.42	4.79	2.37	4.91	2.49	5.27	2.55	5.50	2.60
60	R-610 Maturity	9.72	5.01	10.16	5.02	10.94	5.29	11.76	5.36	10.29	5.00	10.89	4.99	11.90	5.13	12.71	5.22

a/These means and standard deviations are based on the same data as Table 2-7; complete cases only; cases not differentially weighted.

TABLE 2-8b

Means and Standard Deviations for 60 Project TALENT Score Variables
by Grade; Subsample 0[a/]

Variable	Information Test	Grade 9 Boys and Girls (N = 7779)		Grade 10 Boys and Girls (N = 7573)		Grade 11 Boys and Girls (N = 7176)		Grade 12 Boys and Girls (N = 6088)		All Grades Boys (N = 14407)		All Grades Girls (N = 14209)		All Grades Boys and Girls (N = 28616)	
		Mean	S	Mean	S	Mean	S	Mean	S	Mean	S	Mean	S	Mean	S
1	R-101 Screening	11.13	1.59	11.41	1.26	11.54	1.09	11.64	.95	11.26	1.47	11.57	1.03	11.42	1.28
2	R-102 Vocabulary	10.28	4.10	11.56	4.13	12.53	4.10	13.31	3.99	12.44	4.20	11.21	4.18	11.83	4.23
3	R-103 Literature	9.92	4.03	11.63	4.32	12.81	4.46	13.81	4.69	12.04	4.66	11.80	4.52	11.92	4.59
4	R-104 Music	5.09	2.88	5.68	2.91	6.25	2.99	6.76	3.02	5.60	3.00	6.19	2.99	5.89	3.01
5	R-105 Social Studies	11.99	5.38	13.23	5.34	15.13	5.28	15.60	5.01	14.76	5.61	12.97	5.16	13.87	5.46
6	R-106 Mathematics	6.65	3.74	8.08	4.65	9.18	5.71	9.62	5.96	9.22	5.4	7.36	4.62	8.29	5.16
7	R-107 Physical Sci.	7.60	3.74	7.89	3.82	8.34	4.16	8.80	4.46	9.22	4.14	7.00	3.64	8.12	4.05
8	R-108 Biological Sci.	4.97	2.39	6.00	2.37	6.21	2.29	6.30	2.28	6.26	2.42	5.41	2.30	5.84	2.40
9	R-109 Scientific Att.	5.16	.01	5.72	1.97	6.10	1.91	6.50	1.85	5.82	2.04	5.83	1.97	5.83	2.00
10	R-110 Aero. and Space	3.29	2.14	3.51	2.25	3.72	2.34	3.92	2.41	4.56	2.42	2.61	1.66	3.59	2.29
11	R-111 Elec. and Electr.	6.44	3.57	7.05	3.85	7.59	4.09	8.11	4.44	9.04	4.34	5.42	2.62	7.25	4.02
12	R-112 Mechanics	8.66	3.66	9.55	3.79	10.40	3.94	11.06	3.95	11.99	3.59	7.67	2.95	9.84	3.93
13	R-113 Farming	6.80	2.62	7.41	2.54	7.78	2.41	8.12	2.32	7.86	2.44	7.11	2.56	7.49	2.53
14	R-114 Home Economics	9.22	3.67	10.17	3.74	10.83	3.71	11.43	3.78	8.34	3.01	12.39	3.43	10.35	3.81
15	R-115 Sports	5.70	2.96	6.43	3.02	6.92	3.06	7.34	3.08	7.80	3.13	5.28	2.47	6.55	3.09
16	R-190 Info. Total (I)	112.89	35.28	125.33	35.74	135.33	37.01	142.33	37.13	136.20	39.95	119.83	33.69	128.07	37.87
	Other Tests														
17	R-211 Mem. for Sent.	8.79	3.09	9.00	3.03	9.02	3.05	9.00	3.06	8.59	3.01	9.31	3.07	8.95	3.05
18	R-212 Mem. for Words	10.24	4.92	11.02	5.26	11.79	5.45	12.22	5.55	10.44	5.05	12.09	5.49	11.25	5.34
19	R-220 Disguised Words	12.56	6.42	13.96	6.79	15.53	7.09	16.56	7.05	13.81	6.86	15.25	7.04	14.53	6.99
20	R-231 Spelling	8.28	2.98	8.99	2.99	9.67	2.92	10.30	2.99	8.51	3.10	9.99	2.83	9.25	3.06
21	R-232 Capitalization	28.30	4.57	29.06	4.09	29.61	3.62	30.00	3.44	28.55	4.44	29.85	3.47	29.19	4.04
22	R-233 Punctuation	15.96	4.73	16.88	4.66	17.83	4.49	18.58	4.50	16.24	4.71	18.24	4.49	17.23	4.71
23	R-234 English Usage	15.44	3.56	16.19	3.39	16.81	3.26	17.44	3.30	15.89	3.64	16.94	3.19	16.41	3.46
24	R-235 Expression	7.65	2.48	8.24	2.44	8.78	2.24	9.23	2.13	8.08	2.56	8.77	2.19	8.42	2.41
25	R-230 English Total	75.63	14.56	79.36	13.96	82.70	12.89	85.56	13.04	77.26	14.77	83.79	12.69	80.50	14.16
26	R-240 Word Functions	8.48	4.85	9.62	5.32	10.33	5.35	10.89	5.44	9.09	5.03	10.44	5.49	9.76	5.30
27	R-250 Reading Comp.	24.81	10.78	28.13	10.68	30.81	10.31	32.97	9.90	28.39	11.34	29.48	10.37	28.93	10.88
28	R-260 Creativity	7.22	3.61	8.14	3.84	8.95	3.99	9.63	4.07	8.77	4.14	8.04	3.75	8.41	3.97
29	R-270 Mech. Reason.	9.37	4.04	10.05	4.31	10.70	4.36	11.01	4.39	12.18	4.17	8.25	3.49	10.23	4.32
30	R-281 Visual.2-Dim.	11.69	5.26	12.58	5.74	12.92	5.86	13.23	5.83	13.67	5.76	11.43	5.59	12.56	5.78
31	R-282 Visual.3-Dim.	7.60	3.07	8.18	3.23	8.66	3.26	9.04	3.30	8.82	3.39	7.82	3.03	8.33	3.25
32	R-290 Abstract Reason.	7.91	3.17	8.38	3.10	8.92	3.05	9.26	2.93	8.71	3.12	8.44	3.10	8.58	3.11

See footnote on next page.

TABLE 2-8b (continued)

Variable	Other Tests (continued)	Grade 9 Boys and Girls (N = 7779) Mean	s	Grade 10 Boys and Girls (N = 7573) Mean	s	Grade 11 Boys and Girls (N = 7176) Mean	s	Grade 12 Boys and Girls (N = 6088) Mean	s	All Grades Boys (N = 14407) Mean	s	All Grades Girls (N = 14209) Mean	s	All Grades Boys and Girls (N = 28616) Mean	s
33	R-311 Math I	7.14	3.35	7.81	3.46	8.55	3.56	9.23	3.65	8.46	3.62	7.87	3.50	8.12	3.58
34	R-312 Math II	9.28	4.05	10.05	4.45	10.78	5.08	11.16	5.35	10.70	5.09	9.81	4.38	10.26	4.77
35	R-320 Math I + II	16.42	6.74	17.86	7.19	19.33	7.93	20.38	8.27	19.16	8.06	17.58	7.12	18.38	7.65
36	R-333 Math III	2.29	1.59	2.83	1.87	3.51	2.52	3.87	2.88	3.41	2.52	2.74	2.03	3.08	2.31
37	R-340 Math Total	18.71	7.27	20.69	8.25	22.84	9.81	24.26	10.54	22.57	9.85	20.32	8.32	21.45	9.19
38	F-410 Arith. Comp.	22.36	26.75	25.44	22.67	29.63	20.24	32.50	19.22	24.99	25.05	29.35	20.36	27.15	22.95
39	F-420 Table Reading	5.16	10.98	7.80	10.30	9.92	9.49	10.83	9.15	7.28	11.64	9.25	8.61	8.26	10.29
40	F-430 Clerical Check.	17.28	22.35	22.84	21.42	26.09	20.71	28.18	20.25	20.02	22.37	26.59	20.37	23.28	21.65
41	F-440 Object. Inspect.	18.74	8.53	20.67	8.15	21.83	8.05	22.59	7.75	20.14	8.70	21.55	7.76	20.84	8.28
42	R-410 Arith. Comp.	35.04	10.56	36.55	10.23	39.26	10.74	41.17	10.91	36.93	10.79	38.68	10.83	37.80	10.85
43	R-420 Table Reading	10.09	6.47	11.80	7.32	13.25	7.75	14.16	7.64	11.96	7.98	12.45	6.84	12.20	7.44
44	R-430 Clerical Check.	34.02	14.10	37.11	14.70	39.07	14.74	39.98	14.40	35.68	14.77	39.08	14.35	37.37	14.66
45	R-440 Object. Inspect.	20.83	6.90	22.40	7.13	23.40	7.23	24.02	7.05	22.01	7.43	23.14	6.86	22.57	7.18
46	A-410 Arith Comp.	39.27	11.27	40.25	10.40	42.47	10.69	44.06	10.62	40.92	11.32	41.79	10.47	41.35	10.92
47	A-420 Table Reading	15.03	11.61	15.80	10.31	16.59	9.32	17.49	8.95	16.63	11.74	15.66	8.37	16.15	10.22
48	A-430 Clerical Check.	39.60	15.54	41.87	15.36	43.39	15.31	43.91	14.78	40.91	15.88	43.24	14.74	42.07	15.39
49	A-440 Object Inspect.	22.92	7.16	24.14	7.23	24.97	7.25	25.46	7.06	23.87	7.58	24.73	6.87	24.29	7.25
50	A-500 Preferences	57.44	24.70	58.79	23.84	59.47	23.63	60.78	24.93	59.45	26.15	58.58	22.24	59.02	24.29
	S.A.I.														
51	R-601 Sociability	6.11	2.92	6.43	2.94	6.78	2.97	6.93	2.95	6.04	2.94	7.04	2.91	6.54	2.96
52	R-602 Social Sensit.	4.05	2.29	4.35	2.35	4.74	2.39	5.05	2.36	3.93	2.27	5.11	2.33	4.52	2.38
53	R-603 Impulsiveness	1.78	1.56	1.92	1.63	2.00	1.67	2.04	1.72	1.90	1.60	1.96	1.68	1.93	1.64
54	R-604 Vigor	3.40	2.09	3.52	2.12	3.71	2.16	3.80	2.17	3.59	2.11	3.59	2.17	3.59	2.14
55	R-605 Calmness	3.59	2.36	3.92	2.41	4.40	2.57	4.74	2.56	3.94	2.45	4.31	2.55	4.12	2.51
56	R-606 Tidiness	5.13	2.74	5.39	2.79	5.73	2.85	6.03	2.85	4.99	2.77	6.13	2.76	5.55	2.82
57	R-607 Culture	4.67	2.31	4.93	2.33	5.24	2.35	5.48	2.39	4.45	2.32	5.67	2.24	5.05	2.36
58	R-608 Leadership	1.21	1.30	1.20	1.30	1.29	1.36	1.42	1.43	1.24	1.33	1.30	1.36	1.27	1.35
59	R-609 Self-Confidence	4.67	2.30	4.87	2.40	5.24	2.50	5.41	2.52	4.96	2.36	5.09	2.51	5.03	2.44
60	R-610 Maturity	10.00	5.01	10.52	5.02	11.42	5.23	12.23	5.31	10.57	5.21	11.37	5.16	10.97	5.20

a/These means and standard deviations are based on the same data as Table 2-7; complete cases only; cases not differentially weighted.

TABLE 2-9

Means, Standard Deviations, and Lower-Bound Estimates of Reliability Coefficients, for Selected Project TALENT Tests, by Grade and Sex
(Grades 9 and 12)

Based on Students in Approximately 10 Per Cent of the Project TALENT High Schools[a]

Variable		n	Grade 9						Grade 12					
			Boys (N = 3915)			Girls (N = 3864)			Boys (N = 3027)			Girls (N = 3061)		
			$\bar{X}$	s	r_{ii} [b]	$\bar{X}$	s	r_{ii} [b]	$\bar{X}$	s	r_{ii} [b]	$\bar{X}$	s	r_{ii} [b]
Information Test-Part I														
R-101	Screening	12	10.89	1.78	.744	11.36	1.32	.712	11.55	1.11	.707	11.74	0.77	.623
R-102	Vocabulary	21	10.80	4.15	.730	9.76	3.98	.704	13.98	3.81	.712	12.66	4.06	.730
R-103	Literature	24	10.06	4.20	.698	9.78	3.85	.636	13.80	4.67	.763	13.81	4.71	.768
R-104	Music	13	4.79	2.82	.671	5.40	2.90	.677	6.44	3.05	.705	7.06	2.95	.682
R-105	Social Studies	24	12.72	5.65	.848	11.24	4.98	.792	16.59	5.00	.830	14.63	4.83	.788
R-106	Mathematics	23	6.98	3.92	.715	6.31	3.51	.657	11.23	6.15	.887	8.03	5.32	.852
R-107	Physical Science	18	8.32	3.87	.743	6.87	3.46	.683	10.38	4.36	.814	7.23	3.97	.768
R-108	Biological Science	11	5.34	2.44	.592	4.58	2.28	.534	6.78	2.25	.535	5.82	2.21	.483
R-109	Scientific Attitude	10	5.10	2.05	.450	5.21	1.97	.397	6.54	1.88	.400	6.47	1.82	.345
R-110	Aeronautics and Space	10	4.05	2.34	.622	2.52	1.60	.293	5.09	2.45	.648	2.76	1.73	.369
R-111	Electricity, electronics	20	7.69	3.97	.737	5.17	2.54	.427	10.49	4.51	.794	5.76	2.81	.506
R-112	Mechanics	19	10.39	3.59	.670	6.90	2.79	.460	13.53	3.17	.646	8.62	3.02	.511
R-113	Farming	12	7.08	2.62	.630	6.52	2.59	.607	8.54	2.14	.504	7.71	2.42	.577
R-114	Home Economics	21	7.34	2.91	.458	11.11	3.38	.569	9.22	2.91	.409	13.62	3.22	.565
R-115	Sports	14	6.77	3.13	.693	4.61	2.32	.458	8.77	2.94	.669	5.93	2.52	.497
R-190	Total	252	118.35	38.00	.960	107.36	31.33	.941	152.94	37.52	.961	131.85	33.60	.948

See footnotes on next page.

TABLE 2-9 (continued)

Variable		n	Grade 9 Boys (N = 3915) $\bar{X}$	s	r_{ii} b/	Grade 9 Girls (N = 3864) $\bar{X}$	s	r_{ii} b/	Grade 12 Boys (N = 3027) $\bar{X}$	s	r_{ii} b/	Grade 12 Girls (N = 3061 $\bar{X}$	s	r_{ii} b/
Other tests														
R-220	Disguised Words	30	12.00	6.28	.795 c/	13.13	6.51	.811 c/	15.63	7.04	.838 c/	17.47	6.93	.832 c/
R-231	English: Spelling	16	7.54	2.96	.581	9.03	2.81	.535	9.51	3.09	.636	11.09	2.66	.554
R-232	Capitalization	33	27.53	4.90	.835	29.07	4.06	.815	29.41	3.93	.818	30.58	2.77	.730
R-233	Punctuation	27	14.98	4.71	.726	16.95	4.54	.721	17.51	4.56	.731	19.64	4.19	.722
R-234	English Usage	25	14.88	3.78	.603	16.02	3.21	.460	16.96	3.47	.570	17.92	3.05	.473
R-235	Eff. Expression	12	7.24	2.60	.627 d/	8.06	2.27	.531 d/	8.98	2.27	.612 d/	9.48	1.96	.526 d/
R-230	Total	113	72.16	15.14	.904 d/	79.14	13.04	.880 d/	82.36	13.74	.899 d/	88.71	11.47	.872 d/
R-240	Word Funct. in Sentences	24	7.92	4.54	.775	9.05	5.08	.816	10.13	5.19	.817	11.63	5.57	.842
R-250	Reading Comprehension	48	23.99	11.14	.856 c/	25.64	10.33	.833 c/	32.67	10.35	.855 c/	33.28	9.42	.825 c/
R-260	Creativity	20	7.41	3.76	.705	7.03	3.45	.649	10.11	4.22	.757	9.15	3.85	.700
R-270	Mechanical Reasoning	20	11.00	4.05	.735 c/	7.72	3.30	.594	13.29	3.94	.750	8.75	3.56	.644
R-281	Vis. in 2 Dimensions	24	12.62	5.63	.801 c/	10.74	5.44	.787 c/	14.49	5.70	.817 c/	11.98	5.68	.817 c/
R-282	Vis. in 3 Dimensions	16	7.92	3.23	.658	7.27	2.86	.549	9.69	3.38	.710	8.40	3.10	.624
R-290	Abstract Reasoning	15	7.94	3.15	.668	7.88	3.18	.675	9.47	2.92	.633	9.06	2.92	.621
R-311	Math I Arithmetic Reas.	16	7.27	3.42	.705	7.02	3.28	.676	9.78	3.63	.759	8.68	3.39	.738
R-312	II Introd. h.s. math.	24	9.20	4.17	.703 d/	9.36	3.93	.658 d/	12.21	5.69	.850 d/	10.11	4.77	.775 d/
R-320	Subtotal (I + II)	40	16.47	6.94	.821 d/	16.38	6.53	.794 d/	21.98	8.64	.893 d/	18.80	7.56	.852 d/
R-333	III Advanced h.s. math.	14	2.42	1.64	.275 d/	2.15	1.53	.240 d/	4.50	3.15	.746 d/	3.26	2.44	.625 d/
R-340	Total	54	18.88	7.53	.813 d/	18.53	7.00	.785 d/	26.48	11.22	.916 d/	22.05	9.31	.876 d/

a/Subsample 0; cases with complete data only; unweighted.

b/Estimated by Kuder-Richardson formula 21, unless otherwise indicated.

c/Computed by applying the correction-for-range formula to the split-half reliability coefficients that appear in Table 1 of the Counselors' Technical Manual (1961). These latter coefficients were based on separately timed halves of the experimental forms, adjusted (by the Spearman-Brown formula) for the number of items in the final form and further adjusted (by the correction-for-range formula) to make them applicable to Subsample B-04.0(.80)-25.

d/Computed by the formula for reliability of a sum.

If $X_T = X_1 + X_2 + \ldots + X_m$, the formula for reliability (r_{TT}) of the sum (X_T) is as follows:

$$r_{TT} = \frac{\sum_{j=1}^{m}\sum_{i=1}^{m} r_{ij}s_i s_j}{\sum_{j=1}^{m}\sum_{i=1}^{m} r_{ij}s_i s_j - \sum_{i=1}^{m} r_{ii}s_i^2 + \sum_{i=1}^{m} s_i^2}$$

where r_{ii} = reliability coefficient

TABLE 2-10

Correction[a] of Correlation of Part Scores With Total Scores for Information Test (Part I) and English Test by Grade and Sex, Subsample 0 (Grades 9 and 12)[b]

Variable		Grade 9				Grade 12			
		Boys (N=3915)		Girls (N=3864)		Boys (N=3027)		Girls (N=3061)	
		r_{pt}	r'_{pt}	r_{pt}	r'_{pt}	r_{pt}	r'_{pt}	r_{pt}	r'_{pt}
	Information Test, Part I								
R-101	Screening	.607	.595	.470	.458	.437	.428	.304	.295
R-102	Vocabulary	.892	.863	.864	.826	.884	.855	.866	.833
R-103	Literature	.810	.777	.796	.751	.811	.782	.813	.780
R-104	Music	.739	.715	.750	.720	.738	.714	.746	.718
R-105	Social Studies	.875	.852	.849	.816	.832	.809	.843	.813
R-106	Mathematics	.766	.737	.739	.701	.815	.796	.779	.756
R-107	Physical Science	.834	.808	.776	.741	.864	.842	.822	.795
R-108	Biological Science	.762	.736	.707	.673	.692	.664	.716	.682
R-109	Scientific Attitude	.691	.661	.642	.604	.646	.616	.621	.586
R-110	Aeronautics and Space	.734	.711	.526	.490	.732	.709	.540	.508
R-111	Electricity and Electronics	.744	.717	.559	.513	.760	.735	.635	.594
R-112	Mechanics	.756	.725	.639	.591	.664	.634	.630	.586
R-113	Farming	.694	.668	.716	.684	.502	.474	.636	.606
R-114	Home Economics	.656	.614	.674	.628	.575	.529	.577	.535
R-115	Sports	.697	.672	.638	.598	.626	.600	.641	.603
R-190	TOTAL	1.000	.960[c]	1.000	.941[c]	1.000	.961[c]	1.000	.948[c]
	English Test								
R-231	Spelling	.731	.649	.723	.623	.740	.658	.727	.624
R-232	Capitalization	.821	.768	.785	.727	.784	.732	.753	.688
R-233	Punctuation	.866	.781	.865	.768	.865	.776	.870	.768
R-234	English Usage	.806	.707	.769	.636	.814	.705	.809	.669
R-235	Effective Expression	.704	.640	.629	.547	.707	.643	.688	.607
R-230	TOTAL	1.000	.904[c]	1.000	.880[c]	1.000	.899[c]	1.000	.872[c]

[a] The correction formula which is used corrects for a spurious inflation of the correlation due to the inclusion of the part-score measurement errors in the total score. The correction formula estimates what the correlation would be between a part score and a total score if the two scores were based on parallel forms, with the customary uncorrelated errors of measurement.

Correction Formula: $$r'_{pt} = \frac{r_{pt}s_t - s_p(1-r_{pp})}{s_t}$$

Notation: r_{pt} = raw correlation between total score and score on part.

r'_{pt} = corrected correlation coefficient.

r_{pp} = reliability of part score.

A derivation of the formula is presented in:
Davis, F.B., "A Note on Part-Whole Correlation," J. of Ed. Psych., 1958, 49, No. 2, 77-79.

[b] Based on the data of Table 2-7 (a, b, j, k) and Table 2-9.

[c] This value equals the reliability coefficient.

TABLE 2-11

Means, Standard Deviations, Reliability Coefficients, and Intercorrelations of Part Scores and Total Scores on Mechanical Information (R-112) and Home Economics Information (R-114); for Grades 9 and 12, by Sex

Based on Subsample B-04.0(.80)-25;[a] Complete Cases Only; Unweighted Data

	n (No. of items)	BOYS										GIRLS									
		Grade 9 (N=1152)[b]					Grade 12 (N=1153)[b]					Grade 9 (N=990)[b]					Grade 12 (N=1250)[b]				
		$\bar{p}$*	$\bar{X}$	s	r_{ii}**	r	$\bar{p}$*	$\bar{X}$	s	r_{ii}**	r	$\bar{p}$*	$\bar{X}$	s	r_{ii}**	r	$\bar{p}$*	$\bar{X}$	s	r_{ii}**	r
R-112.Mech.Inf.																					
a.Tools, etc.	10	.62	6.15	2.18	.559		.76	7.58	1.75	.443		.38	3.82	1.93	.404		.48	4.84	2.06	.460	
b.Motors, etc.	9	.47	4.21	1.95	.462		.65	5.85	1.93	.507		.31	2.76	1.46	.115		.38	3.39	1.57	.161	
c.Total	19	.55	10.36	3.63	.678		.71	13.43	3.19	.647		.35	6.58	2.75	.455		.43	8.23	3.04	.523	
r_{ab}						.543					.503					.305					.389
r_{ac}						.893					.851					.861					.881
r_{bc}						.863					.881					.745					.780
R-114.Home Ec.Inf.																					
a.Cooking	11	.31	3.43	1.75	.252		.39	4.26	1.88	.288		.47	5.22	2.14	.441		.59	6.47	2.23	.511	
b.Other	10	.39	3.87	1.74	.235		.49	4.93	1.71	.158		.56	5.64	1.76	.232		.67	6.68	1.67	.223	
c.Total	21	.35	7.30	2.82	.421		.44	9.19	2.92	.414		.52	10.86	3.23	.522		.63	13.15	3.27	.567	
r_{ab}						.309					.323					.364					.396
r_{ac}						.811					.833					.861					.884
r_{bc}						.805					.792					.788					.778

[a] See Appendix A-1 for description of this subsample.

[b] These N's--especially the grade-9 ones (and the N for grade-9 girls in particular)--are somewhat smaller than might have been expected. The explanation is believed to be that some complete cases were accidentally eliminated from this analysis in the preliminary computer-processing steps.

* $\bar{p}$ = average proportion of items answered correctly.

** Kuder-Richardson Formula 21.

TABLE 2-12

Intercorrelations[a] Among 57 Variables (56 TALENT Test Scores and College Entry) and Corresponding Means, Standard Deviations, and Reliability Coefficients Based on the 17949 Grade 12 Boys[b] (From 814 High Schools)

Var.	Code	Description		(2) R-192	(3) R-101	(4) R-102	(5) R-103	(6) R-104	(7) R-105	(8) R-106	(9) R-107	(10) R-108	(11) R-109	(12) R-110	(13) R-111	(14) R-112	(15) R-113	(16) R-114	(17) R-115	(18) R-131	(19) R-132	(20) R-133	(21) R-134	(22) R-135	(23) R-136	(24) R-137	(25) R-138	(26) R-139	(27) R-140	(28) R-141
1	R-190	Information I Total	AB	873	420	376	807	726	822	820	869	720	627	726	735	622	482	553	580	659	643	606	525	548	586	644	529	592	476	380
			ab	846	371	850	782	686	792	798	859	710	568	698	717	604	541	536	518	604	598	550	486	496	519	580	494	539	404	359
			AB	946	659	954	874	851	911	895	918	800	873	856	825	687	316	696	825	829	819	818	741	775	840	856	697	810	742	481
2	R-192	Information II Total	AB		387	791	778	693	755	667	713	624	570	638	568	512	413	478	537	769	717	679	562	616	637	697	612	692	573	470
			ab		332	745	739	646	713	613	681	606	502	595	531	484	475	453	468	732	686	635	531	576	578	644	587	647	514	465
			AB		647	929	886	842	881	842	836	728	853	822	722	605	236	645	810	883	844	849	738	797	861	873	751	857	799	511
3	R-101	Screening	AB			373	323	289	404	272	295	256	287	222	230	302	249	244	311	278	273	310	265	197	253	228	214	262	346	276
			ab			317	275	251	350	224	246	209	229	179	187	256	222	208	260	228	219	254	218	151	203	171	178	204	302	235
			AB			635	543	473	661	508	552	545	614	468	472	536	378	496	591	518	561	613	578	468	529	512	430	564	582	514
4	R-102	Vocabulary I	AB				718	641	708	697	735	618	560	621	591	522	394	442	486	614	591	556	464	492	550	593	470	559	435	334
			ab				667	580	654	648	704	597	491	574	556	496	461	408	405	541	536	494	421	430	475	513	419	490	352	315
			AB				859	833	873	862	857	734	846	822	740	613	205	654	801	845	798	790	696	760	839	856	704	807	742	422
5	R-103	Literature	AB					665	726	635	655	548	495	540	443	334	295	361	492	649	567	517	376	505	532	627	491	512	399	316
			ab					620	682	573	619	535	427	494	399	314	385	344	436	588	513	454	340	449	459	560	444	440	320	313
			AB					800	851	828	791	639	762	729	617	400	061	483	709	831	770	740	568	743	798	839	709	755	675	347
6	R-104	Music	AB						597	558	571	462	419	494	448	330	242	373	441	595	488	459	338	456	497	554	429	470	362	301
			ab						537	485	520	435	351	435	394	306	323	342	372	521	431	392	296	399	422	476	381	396	289	301
			AB						790	811	768	598	706	745	670	415	003	560	725	840	715	719	558	710	794	825	654	744	646	309
7	R-105	Social Studies	AB							636	684	565	508	533	467	383	352	369	534	575	584	525	411	473	542	612	512	535	415	325
			ab							586	646	540	436	487	415	348	396	336	485	501	534	454	366	421	474	549	477	465	347	303
			AB							806	830	695	809	727	677	505	225	569	737	813	778	795	646	705	806	830	681	790	673	428
8	R-106	Mathematics	AB								764	514	486	522	551	365	258	350	473	481	496	464	381	414	466	488	398	462	351	281
			ab								742	485	423	474	523	345	307	323	415	399	441	402	348	355	390	407	343	387	280	272
			AB								851	661	766	734	672	442	107	522	717	765	721	711	566	684	777	784	664	753	639	326
9	R-107	Physical Science	AB									629	498	636	680	474	352	395	431	532	528	512	450	447	473	533	425	470	363	288
			ab									610	440	604	653	455	389	369	373	476	483	460	414	401	410	473	386	413	303	269
			AB									732	770	787	805	552	230	561	700	749	725	738	652	675	753	776	626	714	626	381
10	R-108	Biological Science	AB										439	534	516	464	422	400	335	457	446	475	397	388	381	458	360	395	309	258
			ab										390	511	497	428	421	376	277	434	411	433	360	356	337	425	333	360	262	208
			AB										703	664	620	641	449	567	648	573	629	691	635	568	612	625	517	570	552	544
11	R-109	Scientific Attitude	AB											424	393	373	303	309	357	422	435	398	336	326	387	401	326	430	338	249
			ab											367	339	321	296	266	282	350	374	324	284	263	312	324	275	358	266	204
			AB											717	665	604	340	590	726	727	729	753	651	659	747	743	604	761	681	486
12	R-110	Aeronautics and Space	AB												614	500	302	352	334	498	481	421	416	403	406	499	424	419	329	229
			ab												585	469	340	315	262	439	432	367	374	352	340	434	383	362	260	205
			AB												758	641	173	594	691	751	716	678	669	671	725	785	650	684	655	358
13	R-111	Electricity and Electronics	AB													601	327	415	228	418	421	391	430	370	356	388	315	402	306	220
			ab													582	347	384	155	366	377	341	391	322	297	324	281	358	250	202
			AB													688	263	619	581	634	625	624	662	618	636	665	501	601	569	316
14	R-112	Mechanics	AB														460	409	257	343	372	354	434	314	297	316	284	362	329	254
			ab														408	372	189	329	332	314	384	278	258	275	268	338	275	200
			AB														629	633	548	395	536	515	704	481	459	468	365	458	554	507
15	R-113	Farming	AB															328	245	246	290	291	313	250	230	234	208	275	224	275
			ab															339	242	338	311	316	294	272	265	299	257	307	235	212
			AB															315	263	028	225	210	423	177	113	033	028	175	192	532
16	R-114	Home Economics	AB																247	356	316	347	303	319	288	301	239	340	269	234
			ab																191	323	280	312	267	277	243	255	219	307	225	209
			AB																602	556	541	564	575	603	565	569	379	545	540	405
17	R-115	Sports	AB																	390	411	362	264	315	414	401	394	357	333	277
			ab																	318	350	290	204	245	344	332	356	287	261	240
			AB																	684	693	695	611	679	745	695	602	672	665	471
18	R-131	Art	AB																		508	492	380	476	489	561	429	487	412	298
			ab																		452	423	342	425	409	477	377	411	340	298
			AB																		730	763	583	706	804	852	674	769	697	307
19	R-132	Law	AB																			466	382	393	461	487	446	509	399	317
			ab																			406	344	348	405	428	404	459	339	292
			AB																			733	600	615	715	728	667	723	666	442
20	R-133	Health	AB																				373	358	431	446	359	440	406	324
			ab																				325	308	363	373	311	370	343	299
			AB																				645	606	738	741	608	739	684	454
21	R-134	Engineering	AB																					327	328	339	301	354	352	267
			ab																					287	279	288	266	314	306	233
			AB																					575	610	610	524	582	614	478
22	R-135	Architecture	AB																						380	446	349	386	297	251
			ab																						317	385	311	328	238	230
			AB																						697	727	569	663	587	371
23	R-136	Journalism	AB																							458	393	469	369	284
			ab																							376	346	395	297	264
			AB																							796	635	791	693	388
24	R-137	Foreign Travel	AB																								442	444	354	256
			ab																								389	371	275	243
			AB																								698	733	679	321
25	R-138	Military	AB																									388	324	263
			ab																									344	272	258
			AB																									608	592	294
26	R-139	Accounting, Business, Sales	AB																										390	332
			ab																										323	312
			AB																										680	431
27	R-140	Practical Knowledge	AB																											325
			ab																											298
			AB																											459
28	R-141	Clerical	AB																											
			ab																											
			AB																											
29	R-142	Bible	AB																											
			ab																											
			AB																											
30	R-143	Colors	AB																											
			ab																											
			AB																											
31	R-144	Etiquette	AB																											
			ab																											
			AB																											
32	R-145	Hunting	AB																											
			ab																											
			AB																											
33	R-146	Fishing	AB																											
			ab																											
			AB																											
34	R-147	Outdoor Activities (other)	AB																											
			ab																											
			AB																											

INFORMATION TEST

TABLE 2-12 (continued)

(29) R-142	(30) R-143	(31) R-144	(32) R-145	(33) R-146	(34) R-147	(35) R-148	(36) R-149	(37) R-150	(38) R-151	(39) R-152	(40) R-162	(41) R-172	(42) R-211	(43) R-212	(44) R-220	(45) R-230	(46) R-240	(47) R-250	(48) R-260	(49) R-270	(50) R-281	(51) R-282	(52) R-290	(53) R-311	(54) R-312	(55) R-333	(56) R-340	(57) Coll. Ent.	Mean	S.D.	r_{11} Corrected for Range[c/]	r_{1} (Sp Hal
556	306	283	162	278	585	441	454	634	451	667	724	839	186	413	542	636	595	766	644	587	328	475	588	677	721	638	756	458	162.958	36.219	.958	
576	273	235	214	292	521	386	392	571	371	617	671	865	213	385	494	578	564	721	596	553	302	433	463	623	677	591	713	426	"	31.171	*	
496	549	603	-012	235	835	754	730	841	671	846	904	957	065	606	742	849	719	909	852	747	501	699	838	884	876	806	900	582	"	18.445	*	
680	368	320	203	343	646	498	512	733	515	736	781	852	180	398	571	610	547	759	620	495	293	401	481	607	599	530	641	418	82.119	19.180	.897	
703	344	281	277	365	598	450	454	687	445	694	737	817	204	367	525	546	504	709	573	455	265	354	399	544	536	465	580	371	"	16.561	*	
613	579	601	-045	366	835	785	770	886	708	887	931	949	080	611	767	845	718	921	828	672	468	635	810	847	822	760	844	601	"	9.676	*	
225	102	145	081	143	299	229	190	278	153	283	307	378	066	162	249	281	195	332	231	194	130	106	176	246	231	180	244	159	11.643	.938	.577	
197	080	109	070	120	241	185	156	228	109	233	246	322	060	129	204	215	150	269	172	139	096	058	107	180	174	134	184	128	"	.872	*	
385	293	440	138	283	618	546	399	527	346	544	611	638	122	410	503	626	439	636	568	516	387	424	567	603	525	420	540	328	"	.347	*	
500	271	253	114	232	516	401	398	602	434	591	684	961	165	385	527	597	536	723	579	501	276	392	472	604	621	537	653	401	14.921	3.609	.679	
505	234	207	176	249	445	342	320	527	332	524	618	951	188	354	472	533	495	666	525	461	244	342	387	542	557	474	592	359	"	3.120	*	
493	539	557	-099	171	792	739	738	853	719	831	909	990	062	592	758	830	696	905	813	678	469	644	812	840	842	763	854	561	"	1.815	*	
561	277	218	037	164	449	351	421	613	437	607	623	740	144	385	509	571	526	697	503	350	210	304	416	519	566	506	590	426	15.117	4.645	.762	
572	246	172	110	186	385	293	346	545	340	542	555	691	166	353	454	502	479	641	451	311	184	266	336	454	494	428	519	369	"	3.925	*	
546	506	508	-193	090	686	662	740	830	683	828	840	870	063	598	730	814	702	866	719	514	366	493	718	753	806	766	812	634	"	2.485	*	
438	294	205	-021	130	393	327	384	598	455	546	574	668	101	333	507	497	452	577	466	330	196	289	376	435	488	443	507	373	7.150	3.014	.697	
451	252	165	058	157	329	275	297	529	359	471	504	609	125	299	457	440	413	516	414	296	169	239	295	367	412	358	429	322	"	2.641	*	
393	597	471	-306	010	651	628	774	839	741	825	819	845	039	547	722	713	609	783	690	482	363	544	712	701	763	756	778	573	"	1.452	*	
519	237	227	069	163	461	343	387	551	355	587	630	736	139	351	432	554	488	686	474	378	226	325	428	557	576	493	604	398	17.892	4.652	.806	
535	207	185	117	177	392	282	320	475	265	524	563	684	160	316	367	485	450	629	411	330	196	279	345	492	512	423	539	363	"	4.045	*	
468	454	512	-101	107	730	682	689	809	612	816	859	886	040	573	702	810	641	872	740	586	411	555	764	811	803	743	825	533	"	2.296	*	
441	249	263	028	148	441	345	417	492	371	550	561	702	168	405	460	600	629	629	500	483	293	425	523	667	847	770	854	516	12.847	6.200	.888	
431	211	222	086	171	386	294	351	410	266	488	493	653	186	374	408	549	603	572	451	463	278	399	469	627	821	733	829	477	"	5.487	*	
487	527	559	-193	044	673	648	731	796	697	789	810	863	077	611	688	800	737	830	720	579	407	571	758	830	945	914	945	676	"	2.886	*	
472	246	237	112	208	487	363	398	495	352	572	597	742	164	370	447	547	540	647	539	537	292	440	490	602	686	611	708	424	11.454	4.300	.808	
479	216	196	154	219	434	313	341	434	281	523	545	712	181	340	400	498	518	603	496	512	274	407	434	557	651	572	673	392	"	3.874	*	
437	477	539	-059	150	721	677	691	741	599	776	807	858	053	572	668	756	641	820	749	663	422	625	755	802	833	773	849	562	"	1.867	*	
425	203	181	229	292	443	292	286	398	279	458	509	626	152	285	346	423	403	552	475	452	229	352	362	454	451	398	483	293	7.188	2.212	.525	
435	178	143	230	282	390	251	251	365	257	426	474	609	159	262	315	374	369	521	435	413	205	316	311	406	411	364	444	261	"	2.044	*	
375	422	491	230	346	722	580	491	563	386	622	682	732	098	457	512	672	582	709	696	671	407	581	637	701	651	569	675	464	"	.844	*	
387	173	200	113	179	387	294	290	414	275	411	482	576	133	278	363	453	413	550	429	392	215	296	388	490	458	410	500	292	6.817	1.804	.338	
368	136	153	132	167	309	235	225	338	196	340	408	508	141	240	304	384	365	484	366	340	183	245	312	420	388	347	431	250	"	1.650	*	
486	464	558	028	244	767	685	644	745	577	733	811	852	077	537	660	775	645	835	759	669	438	603	774	824	776	699	803	497	"	.730	*	
393	197	177	156	229	434	333	312	464	306	484	516	631	126	237	354	380	360	536	512	510	247	398	382	440	454	415	483	275	5.575	2.463	.654	
396	156	137	200	230	375	284	249	398	224	427	452	584	140	202	299	320	319	483	462	473	216	350	312	383	398	364	429	226	"	2.251	*	
375	521	485	-038	224	722	661	657	734	619	745	802	832	023	475	634	662	558	765	771	705	467	681	732	714	708	651	723	511	"	1.000	*	
316	203	172	171	227	425	338	289	375	279	447	474	595	125	231	305	355	348	459	515	564	279	444	386	462	478	441	513	234	11.289	4.553	.799	
323	170	134	200	229	371	294	236	315	214	398	426	561	138	204	255	307	323	411	473	536	253	402	323	415	438	404	472	207	"	4.148	*	
281	458	464	044	223	681	629	573	632	524	668	684	737	034	418	551	576	468	660	730	714	457	690	698	686	654	610	688	359	"	1.876	*	
241	172	165	340	328	446	301	183	302	216	331	436	532	130	163	275	306	255	403	474	534	274	389	307	396	311	253	354	137	13.786	3.160	.643	
237	152	122	310	282	382	261	163	273	207	305	405	510	136	139	248	252	208	364	427	470	238	330	242	341	271	228	313	120	"	2.888	*	
264	321	456	452	556	715	538	278	412	248	430	553	605	113	318	393	520	447	541	690	826	502	702	590	622	461	352	506	205	"	1.451	*	
289	135	152	338	294	334	220	121	231	091	244	332	403	121	170	217	282	239	344	332	358	184	248	215	320	238	175	272	112	8.590	2.142	.503	
315	160	126	232	234	310	217	178	300	195	309	385	418	128	187	267	280	234	386	332	313	175	232	213	306	260	208	287	147	"	1.830	*	
205	024	329	690	554	432	261	-098	013	-184	032	170	197	119	111	040	298	262	219	344	547	257	336	229	375	171	070	228	-011	"	1.114	*	
266	226	161	153	212	349	252	215	336	322	339	392	459	111	175	274	288	261	356	384	337	188	292	261	332	300	256	328	162	9.452	2.945	.430	
278	206	129	163	207	300	217	180	295	289	306	355	428	124	156	237	250	241	319	348	302	161	254	212	292	266	222	294	155	"	2.776	*	
199	418	456	104	248	657	540	456	583	514	543	618	656	019	333	512	520	393	574	627	573	406	574	580	588	502	457	532	209	"	.985	*	
295	163	206	057	189	354	246	330	438	288	414	436	506	091	261	360	399	343	473	315	224	173	162	296	397	431	374	446	342	9.237	2.755	.616	
263	124	163	078	179	278	184	276	370	208	346	358	428	100	224	303	328	285	400	239	153	132	098	215	323	369	314	381	303	"	2.508	*	
453	463	532	-031	241	715	645	619	729	581	718	770	807	031	516	646	724	616	777	701	588	448	533	694	742	705	638	719	523	"	1.140	*	
441	290	192	043	172	419	369	384	606	437	552	621	667	128	306	474	458	388	583	481	339	216	299	375	413	421	383	449	306	6.992	2.468	.640	.65
453	255	152	132	208	359	313	294	528	330	473	554	601	147	268	410	392	346	513	431	309	194	255	291	342	338	295	365	249	"	2.164	*	.58
395	546	458	-282	018	664	691	796	880	754	845	862	868	030	541	749	713	553	819	700	473	358	519	722	690	726	710	739	533	"	1.186	*	.89
442	200	202	115	182	419	336	335	515	323	495	585	636	131	280	388	441	403	573	440	361	200	278	347	467	452	397	486	317	5.902	1.744	.508	.52
443	166	163	151	183	359	285	273	460	249	438	537	591	144	246	337	378	354	521	387	318	167	234	282	412	391	336	426	265	"	1.577	*	.45
436	459	490	-035	182	696	662	654	743	587	742	781	800	047	506	634	719	624	780	698	574	417	523	653	715	709	659	727	555	"	.745	*	.83
382	228	199	104	198	417	346	313	461	322	487	570	606	1.0	281	401	446	375	534	417	326	180	242	329	422	414	363	443	299	6.415	1.765	.483	.55
375	195	159	141	203	353	294	245	392	253	419	511	550	125	245	346	386	332	471	357	279	149	192	249	355	348	294	375	248	"	1.594	*	.48
414	480	495	-052	174	710	673	656	743	566	774	812	813	051	518	660	710	566	787	705	558	382	519	705	723	694	659	719	525	"	.758	*	84
311	164	172	185	228	412	313	246	343	205	378	433	490	111	207	289	327	292	424	405	406	230	314	306	366	339	292	367	210	3.707	1.119	.282	.37
299	139	132	178	205	358	268	214	302	170	338	386	450	112	179	247	272	255	377	357	355	200	267	246	312	296	258	323	190	"	1.046	*	.32
383	386	521	231	381	726	656	446	567	374	600	687	706	110	427	544	631	503	676	695	719	465	629	661	675	572	481	602	327	"	.399	*	.72
392	253	173	065	148	340	271	271	423	331	437	443	513	104	264	351	375	350	453	386	292	169	267	287	356	361	331	386	258	3.073	1.405	.415	.42
377	224	133	100	145	278	223	209	362	255	380	384	456	116	236	300	313	302	394	336	246	141	222	220	291	298	271	323	221	"	1.293	*	.36
469	494	484	-098	168	657	598	619	705	637	708	720	761	009	463	617	675	593	722	657	542	368	544	638	679	660	619	675	441	"	.552	*	.76
374	204	193	015	119	363	311	295	506	338	469	605	615	106	268	400	444	377	539	402	271	153	223	326	423	422	357	446	312	2.181	.878	.395	
360	165	151	059	124	293	254	218	425	245	392	541	549	116	224	334	374	322	467	337	221	117	168	243	349	345	278	367	267	"	.796	*	
438	498	502	-174	097	688	669	692	842	669	802	871	866	043	558	718	754	629	828	720	520	391	532	718	757	747	699	767	518	"	.372	*	
426	245	185	049	160	394	296	334	527	381	524	549	624	096	282	424	448	393	565	429	315	174	270	345	411	433	392	457	304	3.210	1.309	.499	.52
429	205	142	115	177	321	234	252	445	274	446	468	548	109	241	356	377	345	491	363	264	144	214	254	335	348	310	373	248	"	1.161	*	.45
416	532	478	-205	083	699	655	722	829	715	828	852	872	017	536	723	732	595	831	722	550	361	563	739	725	754	711	764	533	"	.605	*	.79
378	181	169	097	153	338	265	286	424	296	429	447	499	091	218	316	336	304	459	349	256	146	207	257	340	356	314	374	266	3.186	1.486	.458	.48
369	153	135	141	161	295	222	232	376	237	379	391	451	095	184	273	279	258	408	305	217	120	169	193	291	298	260	319	219	"	1.374	*	.42
433	415	446	-111	104	562	564	598	660	546	681	715	722	056	467	558	622	545	704	589	471	334	444	605	599	641	585	636	510	"	.567	*	.79
394	219	203	069	150	395	339	317	505	372	470	630	631	124	256	381	431	384	537	428	323	179	261	333	484	431	379	475	290	5.714	1.941	.540	.56
382	185	162	125	162	333	283	245	427	283	399	576	573	145	216	316	359	333	470	375	284	147	221	255	417	352	296	397	242	"	1.743	*	.49
451	474	498	-160	092	669	678	674	815	673	759	848	837	013	507	685	735	696	792	680	509	383	480	691	773	751	722	780	496	"	.855	*	.84
319	162	197	088	194	395	300	282	412	271	411	455	477	111	212	321	346	273	429	347	299	204	234	283	345	318	258	340	219	3.416	.758	.261	
288	124	159	118	181	336	243	224	341	184	342	380	399	116	173	267	275	212	354	283	248	169	180	204	272	245	191	266	174	"	.685	*	
464	443	477	038	262	666	652	578	706	575	704	764	763	087	471	580	656	548	726	661	551	433	536	657	674	624	544	643	421	"	.324	*	
273	147	156	101	169	314	253	195	333	186	320	339	362	098	181	298	309	238	329	277	214	142	144	190	273	260	205	274	200	2.157	.813	.258	
264	135	129	048	124	273	222	189	334	208	314	324	351	103	172	293	282	210	306	243	167	116	111	156	233	240	193	251	187	"	.748	*	
322	248	378	352	428	526	467	231	336	115	352	410	424	066	248	327	446	382	441	459	472	328	345	368	474	353	267	382	266	"	.318	*	
	197	181	081	170	353	275	294	414	239	445	453	522	153	299	343	419	427	534	378	292	168	253	308	405	402	346	425	302	7.952	3.375	.757	.77
	188	158	093	156	335	253	279	415	233	440	447	533	147	272	333	384	389	524	363	276	159	242	277	380	385	333	412	262	"	3.076	*	.74
	279	365	027	243	437	420	376	413	271	468	484	500	220	480	393	581	604	582	458	372	235	315	458	521	481	404	482	487	"	1.389	*	.90
		108	019	086	182	163	181	265	225	266	266	291	074	191	268	244	239	236	243	168	126	196	197	214	223	206	239	140	1.319	.911	.252	
		091	050	086	152	130	137	223	178	230	231	257	080	171	240	222	219	202	211	145	112	167	161	182	190	166	203	108	"	.872	*	
		301	-191	092	418	486	552	568	532	538	528	543	005	393	498	423	401	485	506	350	266	456	487	458	475	499	496	382	"	.261	*	
			052	082	224	160	162	217	142	220	236	267	071	145	200	244	217	250	204	225	157	185	219	250	261	230	275	170	1.035	.686	.083	
			043	062	176	124	132	180	102	183	194	223	074	125	168	200	176	204	162	185	136	155	177	203	219	187	230	140	"	.656	*	
			116	243	579	500	403	477	385	486	532	558	037	341	452	564	522	564	532	545	367	444	540	601	567	538	592	390	"	.200	*	
				383	219	103	012	001	-061	055	099	117	078	017	019	036	030	094	173	251	114	147	063	100	016	-009	037	-036	2.412	1.281	.466	.45
				330	220	116	084	074	063	125	156	186	071	035	074	048	036	140	192	229	117	146	086	112	053	046	075	-005	"	1.145	*	.36
				649	213	034	-333	-278	-458	-227	-119	-108	143	-087	-231	-014	005	-075	090	353	108	153	-038	051	-132	-232	-110	-166	"	.574	*	.82
					290	170	112	132	092	175	210	242	069	091	139	128	124	201	245	247	127	160	121	168	118	100	139	069	1.986	1.309	.482	.47
					272	159	133	153	145	197	221	263	061	090	152	113	114	205	235	212	113	140	111	156	128	126	150	079	"	1.212	*	.45
					392	250	-015	034	-112	067	166	171	141	103	069	204	179	191	301	445	234	287	175	232	072	-025	092	019	"	.494	*	.63
						330	309	414	271	426	525	561	127	234	337	381	333	473	432	422	241	318	341	409	399	343	427	261	5.584	1.724	.433	.47
						275	262	350	209	371	466	498	137	199	284	302	272	403	364	361	208	263	265	333	335	286	360	222	"	1.565	*	.40
						679	556	683	495	669	775	802	070	462	595	734	617	760	766	729	465	632	708	759	676	594	706	441	"	.723	*	.80

TABLE 2-12 (continued)

Var.	Code	Description		(36) R-149	(37) R-150	(38) R-151	(39) R-152	(40) R-162	(41) R-172	(42) R-211	(43) R-212	(44) R-220	(45) R-230	(46) R-240	(47) R-250	(48) R-260	(49) R-270	(50) R-281	(51) R-282	(52) R-290	(53) R-311	(54) R-312	(55) R-333	(56) R-340	(57) Coll. Ent.	Mean	S.D.	r_{11} Corrected for Range[c]	r_{11} (Split Half)[d]	
35	R-148	Photography	r_{AB}	230	346	229	342	384	427	079	189	295	317	260	383	334	287	170	218	256	318	317	281	339	205	1.525	.701	.181	*	
			r_{ab}	176	289	169	286	326	370	080	159	245	261	217	325	282	242	142	174	194	262	264	230	284	163	"	.662	*	*	
			r_{AB}	606	682	537	679	728	749	072	440	599	662	535	721	683	587	405	546	658	668	636	592	662	466	"	.232	*	*	
36	R-149	Games (sedentary)	r_{AB}		366	290	382	370	419	082	233	311	309	298	361	288	255	198	229	284	329	384	375	404	247	2.666	1.196	.385	*	
			r_{ab}		281	183	308	293	343	091	199	249	253	261	288	234	230	180	194	220	276	323	309	343	192	"	1.104	*	*	
			r_{AB}		764	722	747	733	750	010	480	646	591	487	700	590	391	336	450	631	601	682	701	693	535	"	.458	*	*	
37	R-150	Theater and Ballet	r_{AB}			433	533	624	659	116	309	497	474	408	586	460	302	194	243	346	427	442	399	469	323	4.747	1.763	.582	.585	
			r_{ab}			325	454	557	592	134	272	439	411	367	518	403	262	162	192	262	357	359	310	386	270	"	1.564	*	.523	
			r_{AB}			775	839	875	878	008	542	752	726	583	827	715	487	387	510	711	717	760	748	775	542	"	.812	*	.847	
38	R-151	Foods	r_{AB}				383	406	459	053	202	355	304	274	363	314	175	109	151	228	290	315	302	335	258	1.471	1.082	.459	*	
			r_{ab}				290	314	359	072	167	278	232	222	275	256	142	084	100	136	214	218	193	236	193	"	.920	*	*	
			r_{AB}				694	698	725	046	402	650	549	464	632	545	309	246	378	567	561	634	664	643	488	"	.570	*	*	
39	R-152	Miscellaneous	r_{AB}					599	642	129	318	453	480	434	567	451	357	215	295	378	469	498	447	524	333	5.470	1.789	.466	*	
			r_{ab}					533	581	146	279	390	418	394	498	395	324	188	251	299	407	435	381	461	276	"	1.602	*	*	
			r_{AB}					856	856	024	570	746	739	607	826	713	515	390	539	735	733	752	718	765	577	"	.796	*	*	
40	R-162	Vocabulary II	r_{AB}						859	147	341	500	549	468	664	518	422	237	339	422	538	515	428	548	347	6.785	1.948	.597	.657	
			r_{ab}						830	165	303	446	482	423	599	460	378	204	286	339	471	442	350	475	296	"	1.731	*	.602	
			r_{AB}						959	049	585	743	819	656	898	785	628	447	619	788	814	799	733	816	556	"	.893	*	.883	
41	R-172	Vocab. Tot. (I+II)	r_{AB}							171	400	559	627	553	759	603	512	283	403	491	627	631	539	666	413	21.706	5.142	.783	*	
			r_{ab}							198	370	509	567	517	707	553	475	253	354	407	569	569	473	606	371	"	4.405	*	*	
			r_{AB}							058	602	769	844	697	922	820	675	472	649	820	848	845	768	859	571	"	2.653	*	*	
42	R-211	Memory for Sentences	r_{AB}								309	123	245	169	198	207	169	117	128	151	209	196	156	207	088	8.892	2.972	*	*	
			r_{ab}								310	131	260	172	213	212	175	121	131	157	222	214	173	227	087	"	2.870	*	*	
			r_{AB}								301	065	167	168	134	187	130	081	115	121	137	099	060	104	112	"	.770	*	*	
43	R-212	Memory for Words	r_{AB}									355	443	409	399	315	246	176	226	305	374	407	363	424	269	11.936	5.383	*	*	
			r_{ab}									324	415	380	364	281	223	156	200	266	342	378	335	397	235	"	5.099	*	*	
			r_{AB}									574	639	617	629	557	409	344	427	574	594	609	556	613	497	"	1.725	*	*	
44	R-220	Disguised Words	r_{AB}										533	472	570	482	377	313	284	401	413	428	378	450	289	16.644	7.009	.836	*	
			r_{ab}										501	454	532	442	356	290	249	348	364	378	320	399	247	"	6.410	*	*	
			r_{AB}										688	556	740	690	486	479	488	665	647	656	645	675	492	"	2.835	*	*	
45	R-230	English Total	r_{AB}											610	640	468	386	247	322	468	626	645	535	671	393	85.256	12.670	.882	*	
			r_{ab}											565	581	407	338	222	280	407	578	601	489	630	346	"	11.410	*	*	
			r_{AB}											810	870	759	620	415	556	752	838	825	730	836	599	"	5.510	*	*	
46	R-240	Word Functions in Sentences	r_{AB}												608	477	418	272	386	484	566	632	561	654	396	11.421	5.469	.836	*	
			r_{ab}												573	439	389	263	365	450	527	607	538	632	352	"	4.956	*	*	
			r_{AB}												750	666	554	343	514	646	740	744	661	749	600	"	2.314	*	*	
47	R-250	Reading Comprehension	r_{AB}													624	509	305	423	555	619	604	508	640	415	35.237	9.738	.837	*	
			r_{ab}													580	476	284	384	490	562	544	446	583	368	"	8.579	*	*	
			r_{AB}													820	662	448	631	833	847	831	743	843	605	"	4.607	*	*	
48	R-260	Creativity	r_{AB}														556	347	471	485	500	475	419	513	282	10.946	4.169	.751	*	
			r_{ab}														517	321	429	428	441	422	370	461	239	"	3.822	*	*	
			r_{AB}														769	537	728	781	788	721	648	750	495	"	1.664	*	*	
49	R-270	Mechanical Reasoning	r_{AB}															486	627	562	491	469	405	506	212	14.012	3.902	.754	*	
			r_{ab}															471	599	530	445	439	388	478	184	"	3.584	*	*	
			r_{AB}															603	800	725	717	614	489	638	352	"	1.544	*	*	
50	R-281	Visualization in Two Dimensions	r_{AB}																480	395	309	307	273	328	128	14.999	5.531	.806	*	
			r_{ab}																466	377	282	291	262	313	106	"	5.240	*	*	
			r_{AB}																596	527	490	422	358	441	271	"	1.770	*	*	
51	R-282	Visualization in Three Dimensions	r_{AB}																	547	427	427	381	457	189	10.239	3.361	.710	*	
			r_{ab}																	514	388	399	362	432	163	"	3.138	*	*	
			r_{AB}																	741	650	582	493	602	335	"	1.205	*	*	
52	R-290	Abstract Reasoning	r_{AB}																		517	530	458	558	299	10.121	2.811	.611	*	
			r_{ab}																		458	478	408	506	255	"	2.566	*	*	
			r_{AB}																		797	767	686	784	510	"	1.150	*	*	
53	R-311	Mathematics I (Arith.Reas.)	r_{AB}																			715	598	840	371	10.475	3.507	.744	*	
			r_{ab}																			679	559	823	333	"	3.172	*	*	
			r_{AB}																			867	766	914	543	"	1.494	*	*	
54	R-312	Mathematics II (Introd.H.S. Math)	r_{AB}																				782	949	484	13.613	5.686	.849	*	
			r_{ab}																				752	940	446	"	5.082	*	*	
			r_{AB}																				906	980	645	"	2.552	*	*	
55	R-333	Mathematics III (Adv.H.S. Math)	r_{AB}																					867	438	5.110	3.308	.767	*	
			r_{ab}																					850	390	"	2.966	*	*	
			r_{AB}																					933	649	"	1.464	*	*	
56	R-340	Math Tot. (I+II+III)	r_{AB}																						483	29.139	11.348	.918	*	
			r_{ab}																						446	"	10.049	*	*	
			r_{AB}																						636	"	5.272	*	*	
57	---	College Entry	r_{AB}																							.592	.492	*	*	
			r_{ab}																							"	.445	*	*	
			r_{AB}																							"	.209	*	*	

INFORMATION TESTS

OTHER TALENT TESTS

* Data not available.

a/ Decimal points omitted in intercorrelations.

b/ These are the 17949 grade-12 boys from whom responses to the one-year follow-up questionnaire were received, processed, and incorporated in the 1963 edition of the Project TALENT master tape. The cases are not weighted.

c/ These reliability coefficients are the Table 2-5 coefficients for grade-12 boys, corrected for range to be applicable to the sample on which this table is based. In the case of variables for which more than one reliability coefficient is shown in Table 2-5, the one in the right-hand part of that table is the one that has been corrected for range.

d/ Split-half reliability coefficients corrected by Angoff Formula Number 16.

Notation:

N = Number of grade-12 boys (N = 17949).
n = Number of high schools from which they come (n = 814).

r_{AB} = Correlation between variables A and B, based on N cases.

r_{ab} = Within-groups correlation of A and B, i.e., correlation between the deviations of scores on A and B from their school means.

$r_{\overline{AB}}$ = Correlations between school means, based on n pairs of school means.

Aptitude Tests and Achievement Tests

Although the distinction between achievement tests and aptitude tests is by no means clear-cut, it is nevertheless worth some consideration in the present context. It is fairly generally agreed among psychologists that for all practical purposes a mental test on which performance is wholly free of environmental influences is a myth. It is impossible to measure accurately the abstract and hypothetical entity which represents what a person's basic native aptitude uncontaminated by the effects of past learning and other experiences would be. And even it it were possible to obtain such measures they would be of little or no practical use. True, they would be of considerable theoretical interest, and probably would have uses in research; but an "aptitude score" of this sort is likely to yield a far less accurate prediction of how well an individual can be expected to do in a corresponding task in the future than an aptitude score that is based on native endowment plus the effects of past experience and learning. To restate an old truism, the best predictor of future performance is past performance. Thus, the distinction that has sometimes been made between achievement tests or performance tests on the one hand and aptitude tests on the other, with the former defined as measures of knowledge, skills, and abilities acquired in the past and the latter as measures of skills and abilities wholly independent of the effects of past experience, is unrealistic. Whether a particular instrument is regarded as an aptitude test or an achievement test is more a matter of its purpose than its content. The same test can rightly be regarded as an achievement test on one occasion and an aptitude test on another--or it can even serve both purposes at the same time. It all depends on the point of view and the aims of the user.

The relevance of this discussion to the problem at hand lies in the fact that the TALENT battery includes many tests whose purpose is solely to measure aptitudes, a few tests whose primary purpose is to measure what has been achieved, and still other tests which aim in both directions--forward to predict performance and backward to estimate past performance. For the tests that are regarded primarily as aptitude measures it is of some importance to find out not only how effective they are in this respect but also how efficient a battery they constitute. To be efficient in this context, each predictor test must contribute something specific to the battery--some information about probable future performance that cannot be acquired merely by combining other tests of the battery in the right way. If the goal of a test is to measure academic achievement in a particular area, demonstration that it makes a unique contribution is of less significance. Suppose, for instance, that it had turned out, as of course it did not, that achievement in mathematics is so closely related to achievement in English that the correlation between the two is close to unity if perfectly reliable measures are used. In this unlikely event, it still would have been out of the question to give an English test and call it a mathematics test. (An achievement test in a school subject requires "content validity.") Giving tests in both areas despite the hypothetical very high correlation would be worthwhile, if only because it

would give us definite information that this situation holds for most students, and would also let us know for whom, and under what circumstances, exceptions occur.

Degree to Which Each Test Makes a Unique Contribution to the Battery

The correlational data considered in conjunction with the reliability coefficients suggest that almost all of the aptitude tests are making some unique contribution to the battery. This conclusion is strongly suggested (though not proved) by the fact that almost all the correlation coefficients corrected for attenuation are well under unity, except in a few cases where there is empirical evidence that the reliability coefficients that were used are gross underestimates, resulting in a substantial overcorrection for attenuation. Exceptions occur in a few cases where, as was explicitly pointed out in the first report of this series, a test was included that was considered experimental in nature.[1] It was hoped that by including a few tests of this sort along with a large number of tests whose characteristics were well known, it would be possible to learn something about American high-school students and something about the experimental tests themselves--what they measure and what they can properly be used for.

One such experimental test was the Scientific Attitude Scale (R-109) incorporated in the Information Test. The statistical evidence suggests that the ability measured by the Scientific Attitude items is very nearly, though probably not wholly, identical with the kind of general verbal ability typified by a vocabulary test (e.g., R-102). The Scientific Attitude Scale is discussed at greater length in a later section of this chapter.

It has also been discovered through the correlational analysis that the Mathematics Information Scale (R-106) and Part II of the Mathematics Test (R-312) measure virtually the same thing. This finding is not quite so surprising as it might at first appear. It is discussed further, and a hypothesis to explain it is proposed later in this chapter. Pending that discussion, this point should be understood. Since the role of the Mathematics Test is largely as a measure of achievement, the finding that scores on Part II of the Mathematics Test and on the Mathematics Information Scale have virtually no reliable variance that is not in common, should prove most useful. It throws light on how students learn mathematics. It may thus have important implications for the teaching of secondary-school mathematics.

Inferences based on an informal inspection of intercorrelations in conjunction with reliability coefficients can be supplemented by formal "uniqueness analyses," to determine how much unique nonchance variance each test contributes to a battery. The basic principle underlying

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[1] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study.

uniqueness analysis was formalized by the senior author of this report.[1] The underlying principle is that a test is making a unique contribution to the battery if the multiple correlation (preferably cross-validated) between the test and an optimally weighted composite of all the rest of the tests is significantly less than the maximum correlation consistent with the reliability of the variables correlated. A uniqueness coefficient, representing the proportion of a test's total variance that is both unique (i.e., free of overlap with variance measured by any other test in the battery) and not attributable to chance, is defined by the following formula:

$$U_i^2 = r_{ii} - \frac{r_{ic}^2}{r_{cc}} \qquad (1)$$

where U_i^2 = the uniqueness coefficient for variable i

r_{ii} = the reliability coefficient for variable i

r_{ic} = the cross-validated correlation of variable i with the optimally weighted composite (c) of the rest of the tests

r_{cc} = the reliability of the weighted composite of the independent variables

An additional step, division by the reliability of the test, yields the proportion of the reliable variance that is unique--in other words, an upper limit on the uniqueness coefficient (what it would be if the test were perfectly reliable). This ratio, which might be regarded as a "uniqueness coefficient corrected for attenuation," can be designated by the notation U_∞^2. The formula for it is:

$$U_\infty^2 = \frac{U_i^2}{r_{ii}} = 1 - \frac{r_{ic}^2}{r_{ii} r_{cc}} \qquad (2)$$

A uniqueness analysis of 38 experimentally independent Project TALENT test variables was carried out for four groups--grade-9 boys, grade-9 girls, grade-12 boys, and grade-12 girls. The data used were the intercorrelations (in Tables 2-7-a, 2-7-b, 2-7-j, and 2-7-k) based on Subsample-0 cases, and the corresponding reliability coefficients in Table 2-9. An additional analysis, based on 52 of the 57 variables in Table 2-12 and using the correlation coefficients and reliability coefficients shown in that table for the total group of students, was carried out.

In these analyses, accurate estimates of some of the values required by the formulas above were unavailable and therefore approximations to them were used. It was not feasible to determine r_{cc} or to cross-validate the required multiple correlation coefficients. Therefore,

[1] Flanagan, J. C., Flanagan Aptitude Classification Tests: Technical Report. Chicago: Science Research Associates, 1959.

in computing each uniqueness coefficient 1.00 was substituted for r_{cc} and a multiple correlation coefficient corrected by the Wherry shrinkage formula was used[1] instead of a cross-validated coefficient.

Both these replacement values (1.00 and shrunken multiple R) are higher than the values for which they are substitutes (r_{cc} and cross-validated r_{ic}*) but it is believed that the errors resulting from their use tend to cancel each other. In any event, the errors due to use of the approximations are likely to be small in the case of tests and groups such as those in Project TALENT. The composite of a large number of correlated variables that individually are at least moderately reliable is likely to have a high reliability coefficient--perhaps one that is not far from unity. Moreover the difference between a multiple correlation coefficient (or a shrunken multiple) and the corresponding cross-validated correlation coefficient is likely to be small when the number of cases is large in comparison with the number of variables and when the multiple correlation coefficient is high enough to represent a real relationship and not just chance.

The only reliability coefficients available for the samples on which the multiple correlation coefficients were based are probably underestimates in most cases, for reasons discussed earlier in this chapter.

The formula used to give an approximation of the uniqueness coefficients defined by formula (1) was:

$$U_i'^2 = r_{ii} - {}_sR^2 \qquad (3)$$

where $U_1'^2$ = approximation of uniqueness coefficient

$R^2_{i\cdot c}$ = the multiple correlation coefficient

${}_sR^2 = R^2_{i\cdot c}$ corrected by Wherry shrinkage formula

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[1] Wherry, R. J., "A New Formula for Predicting the Shrinkage of the Coefficient of Multiple Correlation," Annals of Mathematical Statistics, 1939, 2, 440-57.

* Though the Wherry shrinkage formula is intended to correct for the same sort of inflation as cross-validation does, it is well known that the Wherry procedure generally corrects for only a part of the spurious correlation. Correlation coefficients obtained by cross-validation are usually lower than the corresponding ones obtained from the Wherry formula.

The Wherry shrinkage formula is:

$${}_sR^2 = 1 - \frac{N - 1}{N - n - 1}\left(1 - R^2_{i\cdot c}\right)$$

where N = number of cases

n = number of independent variables

TABLE 2-13

Multiple Correlations of Each of 38 TALENT Test Variables Against All of the Other 37, Corresponding Uniqueness Coefficients, and Other Related Data, By Grade and Sex (Subsample 0; Grades 9 and 12)[a]

Test	Code	Grade	Sex	R	R^2	${}_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
Information Test, Part I									
Screening	R-101	9	M	.685	.469	.464	.744	.280	.376
			F	.577	.333	.326	.712	.386	.542
		12	M	.567	.321	.313	.707	.394	.557
			F	.429	.184	.174	.623	.449	.721
Vocabulary	R-102	9	M	.879	.773	.771	.730	-.041	-.056
			F	.848	.720	.717	.704	-.013	-.018
		12	M	.873	.761	.758	.712	-.046	-.065
			F	.854	.729	.726	.730	.004	.005
Literature	R-103	9	M	.807	.652	.649	.698	.049	.070
			F	.786	.618	.615	.636	.021	.033
		12	M	.834	.695	.692	.763	.071	.093
			F	.817	.667	.663	.768	.105	.137
Music	R-104	9	M	.743	.551	.547	.671	.124	.185
			F	.748	.558	.554	.677	.123	.182
		12	M	.755	.570	.564	.705	.141	.200
			F	.756	.571	.566	.682	.116	.170
Social Studies	R-105	9	M	.867	.752	.750	.848	.098	.116
			F	.826	.682	.679	.792	.113	.143
		12	M	.832	.692	.689	.830	.141	.170
			F	.829	.687	.683	.788	.105	.133
Mathematics	R-106	9	M	.799	.638	.634	.715	.081	.113
			F	.762	.581	.576	.657	.081	.123
		12	M	.900	.810	.808	.887	.079	.089
			F	.870	.757	.754	.852	.098	.115
Physical Science	R-107	9	M	.823	.677	.674	.743	.069	.093
			F	.754	.569	.565	.683	.118	.173
		12	M	.865	.748	.745	.814	.069	.085
			F	.818	.669	.665	.768	.103	.134
Biological Science	R-108	9	M	.754	.568	.564	.592	.028	.047
			F	.692	.479	.474	.534	.060	.112
		12	M	.701	.492	.486	.535	.049	.092
			F	.707	.500	.494	.483	-.011	-.023
Scientific Attitude	R-109	9	M	.696	.484	.479	.450	-.029	-.064
			F	.645	.416	.410	.397	-.013	-.033
		12	M	.659	.434	.427	.400	-.027	-.068
			F	.646	.418	.410	.345	-.066	-.191

TABLE 2-13 (continued)

Test	Code	Grade	Sex	R	R^2	${}_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
Aeronautics and Space	R-110	9	M	.736	.541	.537	.622	.085	.137
			F	.527	.278	.271	.293	.022	.075
		12	M	.746	.556	.550	.648	.098	.151
			F	.556	.309	.301	.369	.068	.184
Electricity and Electronics	R-111	9	M	.773	.597	.594	.737	.143	.194
			F	.550	.302	.296	.427	.131	.307
		12	M	.807	.652	.648	.794	.146	.184
			F	.644	.414	.407	.506	.099	.196
Mechanics	R-112	9	M	.785	.617	.613	.670	.057	.085
			F	.634	.402	.397	.460	.063	.137
		12	M	.750	.563	.558	.646	.088	.136
			F	.672	.452	.445	.511	.066	.129
Farming	R-113	9	M	.716	.513	.508	.630	.122	.194
			F	.715	.512	.507	.607	.100	.165
		12	M	.602	.362	.354	.504	.150	.298
			F	.674	.455	.448	.577	.129	.224
Home Economics	R-114	9	M	.632	.400	.394	.458	.064	.140
			F	.664	.441	.436	.569	.133	.234
		12	M	.578	.334	.326	.409	.083	.203
			F	.608	.370	.362	.565	.203	.359
Sports	R-115	9	M	.723	.523	.518	.693	.175	.253
			F	.609	.371	.365	.458	.093	.203
		12	M	.670	.449	.442	.669	.227	.339
			F	.618	.382	.374	.497	.123	.247
Memory for Sentences	R-211	9	M	.443	.197	.189	*	*	*
			F	.450	.202	.194	*	*	*
		12	M	.393	.154	.144	*	*	*
			F	.447	.200	.190	*	*	*
Memory for Words	R-212	9	M	.566	.320	.314	*	*	*
			F	.577	.333	.326	*	*	*
		12	M	.529	.280	.271	*	*	*
			F	.624	.390	.382	*	*	*
Disguised Words	R-220	9	M	.719	.517	.513	.795	.282	.355
			F	.713	.509	.504	.811	.307	.379
		12	M	.714	.510	.503	.838	.335	.400
			F	.720	.519	.513	.832	.319	.383

TABLE 2-13 (continued)

Test	Code	Grade	Sex	R	R^2	${}_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
English									
I. Spelling	R-231	9	M	.699	.489	.484	.581	.097	.167
			F	.677	.458	.453	.535	.082	.153
		12	M	.695	.483	.477	.636	.159	.250
			F	.666	.444	.437	.554	.117	.211
II. Capitalization	R-232	9	M	.700	.490	.485	.835	.350	.419
			F	.665	.442	.436	.815	.379	.465
		12	M	.670	.449	.442	.818	.376	.460
			F	.651	.424	.417	.730	.313	.429
III. Punctuation	R-233	9	M	.810	.656	.653	.726	.073	.101
			F	.803	.645	.642	.721	.079	.110
		12	M	.808	.653	.649	.731	.082	.112
			F	.800	.640	.636	.722	.086	.119
IV. Usage	R-234	9	M	.722	.521	.516	.603	.087	.144
			F	.670	.449	.444	.460	.016	.035
		12	M	.726	.527	.521	.570	.049	.086
			F	.706	.498	.492	.473	-.019	-.040
V. Effective Expression	R-235	9	M	.651	.424	.418	.627	.209	.333
			F	.573	.329	.322	.531	.209	.394
		12	M	.666	.443	.436	.612	.176	.288
			F	.631	.398	.391	.526	.135	.257
Word Functions in Sentences	R-240	9	M	.698	.488	.483	.775	.292	.377
			F	.732	.536	.532	.816	.284	.348
		12	M	.735	.541	.535	.817	.282	.345
			F	.756	.572	.567	.842	.275	.327
Reading Comprehension	R-250	9	M	.874	.764	.762	.856	.094	.110
			F	.873	.761	.759	.833	.074	.089
		12	M	.854	.730	.727	.855	.128	.150
			F	.862	.743	.740	.825	.085	.103
Creativity	R-260	9	M	.728	.530	.525	.705	.180	.255
			F	.677	.458	.453	.649	.196	.302
		12	M	.738	.544	.539	.757	.218	.288
			F	.700	.490	.483	.700	.217	.310
Mechanical Reasoning	R-270	9	M	.780	.609	.605	.735	.130	.177
			F	.690	.476	.471	.594	.123	.207
		12	M	.789	.622	.617	.750	.133	.177
			F	.728	.530	.525	.644	.119	.185

TABLE 2-13 (continued)

Test	Code	Grade	Sex	R	R^2	$_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
Visualization in Two Dimensions	R-281	9	M	.582	.338	.332	.801	.469	.586
			F	.564	.318	.311	.787	.476	.605
		12	M	.583	.340	.332	.817	.485	.594
			F	.571	.326	.317	.817	.500	.612
Visualization in Three Dimensions	R-282	9	M	.662	.438	.433	.658	.225	.342
			F	.641	.411	.405	.549	.144	.262
		12	M	.705	.497	.490	.710	.220	.310
			F	.690	.476	.470	.624	.154	.247
Abstract Reasoning	R-290	9	M	.728	.529	.525	.668	.143	.214
			F	.724	.525	.520	.675	.155	.230
		12	M	.718	.516	.510	.633	.123	.194
			F	.700	.490	.483	.621	.138	.222
Mathematics									
I. Arithmetic Reasoning	R-311	9	M	.783	.613	.609	.705	.096	.136
			F	.761	.579	.575	.676	.101	.149
		12	M	.796	.633	.629	.759	.130	.171
			F	.768	.589	.584	.738	.154	.209
II. Introductory High-School Math	R-312	9	M	.798	.636	.633	.703	.070	.100
			F	.787	.619	.616	.658	.042	.064
		12	M	.889	.791	.788	.850	.062	.073
			F	.852	.727	.723	.775	.052	.067
III. Advanced High-School Math	R-333	9	M	.315	.099	.091	.275	.184	.669
			F	.287	.083	.074	.240	.166	.692
		12	M	.813	.661	.657	.746	.089	.119
			F	.723	.522	.516	.625	.109	.174
Arithmetic Computation	F-410	9	M	.582	.339	.333	*	*	*
			F	.575	.331	.324	*	*	*
		12	M	.600	.360	.352	*	*	*
			F	.592	.350	.342	*	*	*
Table Reading	F-420	9	M	.603	.364	.358	*	*	*
			F	.544	.296	.289	*	*	*
		12	M	.507	.257	.247	*	*	*
			F	.546	.299	.290	*	*	*
Clerical Checking	F-430	9	M	.521	.271	.264	*	*	*
			F	.503	.253	.246	*	*	*
		12	M	.535	.287	.278	*	*	*
			F	.531	.282	.274	*	*	*
Object Inspection	F-440	9	M	.555	.308	.302	*	*	*
			F	.553	.305	.299	*	*	*
		12	M	.529	.280	.271	*	*	*
			F	.563	.316	.308	*	*	*

TABLE 2-13 (continued)

Test	Code	Grade	Sex	R	R^2	$_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
Preferences	A-500	9	M	.349	.122	.113	*	*	*
			F	.350	.122	.114	*	*	*
		12	M	.348	.121	.110	*	*	*
			F	.387	.150	.140	*	*	*
Number of Cases		9	M		3915		See		
			F		3864		Table		
		12	M		3027		2-9		
			F		3061		for N's		

a/ Based on intercorrelations in Table 2-7 (a, b, j, k) and reliability coefficients in Table 2-9.

*Data not available.

TABLE 2-14

Multiple Correlation of Each of 52 Variables (51 TALENT Test Variables and College-Entry vs. Non-Entry) Against All of the Other 51, Corresponding Uniqueness Coefficients, and Other Related Data Based on Grade 12 Boys[a] (N=17949[b])

Variable	Variable Number	R	R^2	$_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
Information Test							
Screening	R-101	.522	.272	.270	.577	.307	.532
Vocabulary I	R-102	.868	.754	.753	.679	-.074	-.109
Literature	R-103	.848	.720	.719	.762	.043	.056
Music	R-104	.766	.587	.586	.697	.111	.159
Social Studies	R-105	.841	.707	.706	.806	.100	.124
Mathematics	R-106	.905	.820	.819	.888	.069	.078
Physical Science	R-107	.870	.757	.756	.808	.052	.064
Biological Science	R-108	.730	.533	.532	.525	-.007	-.013
Scientific Attitude	R-109	.636	.404	.402	.338	-.064	-.189
Aeronautics and Space	R-110	.750	.563	.562	.654	.092	.141
Electricity and Electronics	R-111	.796	.634	.633	.799	.166	.208
Mechanics	R-112	.749	.561	.560	.643	.083	.129
Farming	R-113	.602	.363	.361	.503	.142	.282
Home Economics	R-114	.568	.323	.321	.430	.109	.254
Sports	R-115	.642	.412	.411	.616	.205	.333
Art	R-131	.759	.576	.575	.640	.065	.102
Law	R-132	.698	.487	.485	.508	.023	.045
Health	R-133	.661	.437	.436	.483	.047	.097
Engineering	R-134	.588	.346	.344	.282	-.062	-.220
Architecture	R-135	.599	.359	.357	.415	.058	.140
Journalism	R-136	.655	.430	.428	.395	-.033	-.084
Foreign Travel	R-137	.718	.515	.513	.499	-.014	-.028
Military	R-138	.602	.362	.360	.458	.098	.214
Accounting, Business, Sales	R-139	.676	.458	.456	.540	.084	.156
Practical Knowledge	R-140	.591	.350	.348	.261	-.087	-.333
Clerical	R-141	.495	.245	.243	.258	.015	.058
Bible	R-142	.642	.412	.411	.757	.346	.457
Colors	R-143	.393	.154	.152	.252	.100	.397
Etiquette	R-144	.340	.116	.113	.083	-.030	-.361
Hunting	R-145	.536	.287	.285	.466	.181	.388
Fishing	R-146	.494	.244	.242	.482	.240	.498
Outdoor Activities (other)	R-147	.644	.414	.413	.433	.020	.046
Photography	R-148	.497	.247	.245	.181	-.064	-.354
Games (sedentary)	R-149	.524	.274	.272	.385	.113	.294
Theater and Ballet	R-150	.746	.557	.556	.582	.026	.045
Foods	R-151	.579	.335	.333	.459	.126	.274
Miscellaneous	R-152	.720	.518	.516	.466	-.050	-.107
Memory for Sentences	R-211	.371	.137	.135	*	*	*
Memory for Words	R-212	.551	.304	.302	*	*	*
Disguised Words	R-220	.693	.480	.479	.836	.357	.427
English (Total)	R-230	.779	.607	.606	.882	.276	.313
Word Functions in Sentences	R-240	.743	.552	.551	.836	.285	.341
Reading Comprehension	R-250	.854	.730	.729	.837	.108	.129

TABLE 2-14 (continued)

Variable	Variable Number	R	R^2	${}_sR^2$	r_{ii}	$U_i'^2$	$U_\infty'^2$
Creativity	R-260	.737	.544	.542	.751	.209	.278
Mechanical Reasoning	R-270	.793	.629	.628	.754	.126	.167
Visualization in Two Dimensions	R-281	.567	.322	.320	.806	.486	.603
Visualization in Three Dimensions	R-282	.714	.510	.509	.710	.201	.283
Abstract Reasoning	R-290	.708	.501	.500	.611	.111	.182
Math I. Arithmetic Reasoning	R-311	.791	.626	.625	.744	.119	.160
II. Introductory H.S. Math	R-312	.896	.802	.802	.849	.047	.055
III. Advanced H.S. Math	R-333	.816	.666	.665	.767	.102	.133
College Entry[c]	---	.566	.321	.319	*	*	*

[a] Based on the data of Table 2-12.

[b] N=17949 except for r_{ii}, for which N varies. The r_{ii} values are those in Table 2-12 in the column headed "r_{ii} corrected for range."

[c] This is a dichotomous variable, entry-vs.-non-entry into college within one year after high-school graduation (1=entry; 0=non-entry).

*Data not available.

TABLE 2-15

Multiple Correlation Coefficients[a] and Beta Weights for Correlation of Each of 52 Variables With Optimally Weighted Composite of the Remaining 51[b] Based on 17949 Grade-12 Boys

Independent Variable	Dependent Variables: 1 R-101	2 R-102	3 R-103	4 R-104	5 R-105	6 R-106	7 R-107	8 R-108	9 R-109	10 R-110	11 R-111	12 R-112	13 R-113
1. R-101	.52153	.03683	.00697	.01741	.10561	.00569	-.00855	-.02703	.04150	-.03602	-.00457	.07651	.03064
2. R-102	.10893	.86823	.10515	.08721	.06075	.10178	.09718	.11847	.11823	.09953	.05977	.15798	.08366
3. R-103	.01810	.09231	.84829	.15434	.16997	.03626	.04498	.07228	.02724	.04752	-.03811	-.05842	.00551
4. R-104	.03071	.05201	.10484	.76631	.02402	.01642	.00282	.02010	-.00878	.03370	.06546	-.00305	-.00549
5. R-105	.26213	.05098	.16248	.03381	.84064	.02873	.13125	.09349	.04079	-.00578	-.02574	.02908	.09087
6. R-106	.02299	.13896	.05639	.03760	.04674	.90537	.25091	-.00531	-.00209	-.01133	.08405	-.00892	-.08449
7. R-107	-.02555	.09823	.05179	.00478	.15807	.18576	.86975	.20801	-.00819	.16017	.34999	-.03290	.03973
8. R-108	-.04212	.06244	.04339	.01776	.05870	-.00205	.10845	.73000	.04215	.06468	.02272	.02630	.13940
9. R-109	.05069	.04883	.01281	-.00608	.02007	-.00063	-.00335	.03303	.63553	.01828	-.00549	.03238	.02586
10. R-110	-.06001	.05607	.03050	.03183	-.00388	-.00467	.08928	.06915	.02493	.75038	.15187	.07899	-.04559
11. R-111	-.00910	.04022	-.02921	.07389	-.02064	.04144	.23299	.02902	-.00879	.18143	.79637	.28109	-.03427
12. R-112	.12689	.08860	-.03732	-.00287	-.01943	-.00367	-.01825	.02799	.04397	.07862	.23424	.74903	.18560
13. R-113	.03501	.03233	.00243	-.00356	.04183	-.02391	.01518	.10220	.02413	-.03126	-.01967	.12787	.60235
14. R-114	.05086	.01980	-.00377	.04272	.00799	.00976	-.01129	.06036	.01209	-.02063	.05736	.05375	.08420
15. R-115	.07818	.01096	.01749	.04379	.09319	.03756	.00469	-.02830	.01933	.00696	-.10767	.03238	.05098
16. R-131	-.00172	.02789	.10977	.08514	.00810	-.02303	.00537	.01149	.01444	.04138	-.00401	-.00967	-.03255
17. R-132	-.03008	.03027	.02171	-.00157	.06001	-.00458	-.00260	-.00699	.02960	.03979	.01696	.01649	-.00237
18. R-133	.04703	.01875	-.00386	-.00549	.01755	.00055	.02981	.09124	.00704	-.00327	-.00548	.00396	.00756
19. R-134	.04126	.01037	-.02058	-.01647	.00891	-.00011	.02087	.01148	.00125	.02221	.02916	.06420	.02844
20. R-135	-.03870	.00897	.03785	.02666	.02325	.00144	-.00198	.00830	-.01899	.01412	.02017	.02053	.02343
21. R-136	-.02963	.03065	.00262	.04001	.04640	.00868	-.00512	-.01385	.01036	.00528	.01517	.00355	-.00311
22. R-137	-.08520	.02934	.07623	.06035	.11105	-.01085	.00704	.02544	-.00122	.08065	-.02307	.00097	-.03494
23. R-138	-.03536	-.00268	.02110	.01944	.07352	-.00491	-.00793	-.00684	-.01301	.07595	-.01291	.01575	-.03016
24. R-139	-.02414	.03027	-.01370	.00504	.05086	-.01103	-.03223	-.02422	.06067	-.00595	.03266	.03107	.01406
25. R-140	.14694	-.00259	-.01195	-.01382	-.00264	.00286	-.02151	-.02975	.02362	-.01491	-.00491	.03375	-.03070
26. R-141	.08317	-.01854	-.00852	.01323	-.00841	.00410	-.00323	-.00869	-.01177	-.02882	-.01307	.00807	.09025
27. R-142	-.01457	-.00348	.09578	.01660	.03440	.00142	.01472	.03633	.04099	.01956	-.02546	-.06611	.07500
28. R-143	-.01561	-.00423	.00498	.03524	-.00747	.00457	-.00195	-.00413	-.01382	-.01765	.00101	.01119	.01509
29. R-144	.01917	.00253	-.01169	.00015	-.00852	.00505	-.00194	-.00974	.00873	-.01316	-.01481	-.00529	.02206
30. R-145	-.01773	-.01430	.00312	-.05602	-.01316	-.00650	-.00384	.06168	.00951	.00344	-.02100	.10348	.14812
31. R-146	.00335	.00188	-.00833	-.01627	-.03679	-.00327	-.00633	.06601	.00092	.01330	.00115	.04639	.05532
32. R-147	.04706	.00873	.00499	-.01512	-.00109	.00509	.01514	.03003	.02088	.00830	-.00072	.06387	.01667
33. R-148	.03501	.00660	-.00794	-.00203	-.01848	.00400	-.00370	-.02621	.00791	.01472	.03490	.00920	.00825
34. R-149	.01130	-.00208	.03178	.02710	.00209	.01106	.01419	-.00916	.01249	-.00246	.00820	-.04294	-.04237
35. R-150	-.01064	.03994	.04298	.11716	-.01860	-.00409	-.02859	-.04459	.00686	.05407	-.00218	-.03106	-.00390
36. R-151	-.04343	.03828	.03132	.07228	-.03776	.01517	-.00644	-.00270	.00236	-.01309	-.00231	.02157	-.06988
37. R-152	.00696	-.01300	.04273	.03177	.03923	.01394	.02534	.01110	-.01639	.02848	.04776	-.03332	-.04244
38. R-211	-.01095	-.00850	-.00597	-.02354	-.01058	-.00575	-.00081	.01225	-.00736	.00634	-.00737	.01064	.00392
39. R-212	.00492	.01665	.01822	.01509	.00002	.00510	.01141	.00924	.00150	-.03172	-.00498	-.02733	.00946
40. R-220	.03013	.03383	.01454	.08866	-.06676	.00973	.00936	-.03619	-.01341	-.02877	-.05085	-.00649	-.00899
41. R-230	.04026	.03960	.03073	.03181	.02356	-.04404	-.00835	-.00631	.03190	-.04496	-.04077	.02111	.03545
42. R-240	-.03154	-.00751	.02698	.02338	-.02447	.06376	.00899	.00825	.01719	-.04911	-.04643	-.03025	.01594
43. R-250	.04287	.10585	.10926	-.03539	.10954	-.02914	.01422	.06245	.11697	.01328	-.07770	-.04239	-.00314
44. R-260	-.03220	.00714	.00686	.01656	-.03596	-.01767	-.01893	.01579	.01068	.05496	.07400	.06215	.01131
45. R-270	-.01403	.01197	-.05895	-.02394	-.04790	.00800	.03241	.03277	.04248	.11835	.11643	.13094	.06700
46. R-281	.02278	-.00814	-.00573	-.01781	.00836	-.01065	-.00674	-.00611	-.01191	-.02198	-.00907	.00868	.00053
47. R-282	-.07467	-.01964	-.01137	.01347	.01244	.00290	.00325	.00397	-.03253	.03108	.02954	.03990	.00026
48. R-290	-.01616	-.01533	-.01133	.00740	.01458	.01815	.00467	-.01967	.04378	-.01665	-.01896	-.03757	-.03608
49. R-311	-.04122	.02172	-.02738	-.05750	.03637	.01273	-.00062	-.01061	.09471	-.02220	.00872	.06077	.05488
50. R-312	-.03057	.00039	-.01560	-.01872	.01027	.38930	.06658	-.03606	-.02188	-.01611	-.00894	-.05673	-.01081
51. R-333	-.02766	-.03245	.00738	-.00243	-.02636	.18585	.00955	.00758	.05609	.01863	.04172	-.05293	-.03749
52. Coll[c]	-.01662	-.00809	.02728	.03406	-.00171	.06583	.02036	.01147	.00295	-.00607	-.03500	-.02456	-.03364

TABLE 2-15 (continued)

Independent Variable	Dependent Variables 14 R-114	15 R-115	16 R-131	17 R-132	18 R-133	19 R-134	20 R-135	21 R-136	22 R-137	23 R-138	24 R-139	25 R-140	26 R-141
1. R-101	.04730	.06309	-.00100	-.02120	.03634	.03710	-.03406	-.02322	-.05679	-.03100	-.01799	.13127	.08622
2. R-102	.05445	.02615	.04798	.06309	.04285	.02756	.02334	.07102	.05783	-.00695	.06671	-.00685	-.05683
3. R-103	-.00910	.03666	.16577	.03972	-.00774	-.04803	.08651	.00533	.13193	.04802	-.02650	-.02772	-.02293
4. R-104	.07007	.06233	.08734	-.00195	-.00749	-.02612	.04139	.05530	.07095	.03006	.00662	-.02177	.02418
5. R-105	.01845	.18665	.01170	.10496	.03367	.01988	.05079	.09025	.18372	.15993	.09408	-.00584	-.02165
6. R-106	.03664	.12239	-.05408	-.01302	.00172	-.00040	.00512	.02747	-.02921	-.01739	-.03318	.01033	.01716
7. R-107	-.03137	.01132	.00933	-.00590	.06686	.05610	-.00522	-.01200	.01402	-.02079	-.07180	-.05744	-.01000
8. R-108	.08749	-.03559	.01042	-.00768	.10990	.01609	.01139	-.01692	.02642	-.00934	-.02813	-.04142	-.01405
9. R-109	.01373	.01906	.01026	.02548	.00665	.00137	-.02042	.00991	-.00099	-.01392	.05522	.02577	-.01490
10. R-110	-.03196	.00935	.04010	.04672	-.00421	.03327	.02071	.00690	.08957	.11092	-.00739	-.02219	-.04979
11. R-111	.10616	-.17293	-.00464	.02378	-.00844	.05218	.03536	.02365	-.03064	-.02252	.04844	-.00873	-.02686
12. R-112	.08291	.04334	-.00933	.01928	.00508	.09573	.02998	.00461	.00107	.02289	.03840	.05000	.01388
13. R-113	.08947	.04700	-.02163	-.00191	.00667	.02922	.02357	-.00279	-.02661	-.03020	.01197	-.03134	.10690
14. R-114	.56829	.00506	.00898	-.01085	.04394	.00407	.04387	-.00320	-.02177	-.02884	.02827	-.00450	.02109
15. R-115	.00583	.64227	-.02344	.03326	-.01017	-.01993	.00980	.06953	.00726	.09815	-.02552	.03336	.03110
16. R-131	.01435	-.03252	.75932	.03577	.06907	.03950	.10230	.04586	.08821	.01775	.03594	.05763	-.01177
17. R-132	-.01432	.03808	.02952	.69784	.05296	.03394	.00132	.03553	.02646	.08688	.11129	.05383	.04433
18. R-133	.05288	-.01062	.05199	.04829	.66136	.04022	-.01968	.03999	.02045	-.00507	.03344	.09051	.06146
19. R-134	.00421	-.01789	.02555	.02660	.03457	.58778	.04477	.02139	.00274	.01680	.01444	.06978	.03478
20. R-135	.04635	.00899	.06760	.00106	-.01728	.04573	.59932	.02383	.05632	.02308	.02198	-.00102	.02410
21. R-136	-.00380	.07160	.03404	.03195	.03944	.02454	.02677	.65536	.01788	.03913	.08195	.04869	.01626
22. R-137	-.03038	.00879	.07697	.02797	.02371	.00369	.07437	.02102	.71747	.06175	.00699	.01636	-.02555
23. R-138	-.03060	.09036	.01178	.06985	-.00447	.01723	.02317	.03498	.04696	.60159	.02454	.03152	.04222
24. R-139	.03528	-.02764	.02805	.10524	.03468	.01742	.02596	.08617	.00625	.02886	.67638	.05211	.09049
25. R-140	-.00469	.03013	.03752	.04247	.07830	.07023	-.00101	.04271	.01220	.03093	.04347	.59130	.08889
26. R-141	.01892	.02421	-.00660	.03013	.04581	.03017	.02046	.01229	-.01643	.03570	.06505	.07660	.49527
27. R-142	.00305	-.09062	.01373	.05221	-.00361	.01573	.07765	-.00414	.00668	.06268	.02293	.03078	.03993
28. R-143	.05825	-.01297	.03750	-.01359	.02477	-.00206	.05316	-.00436	.01732	.00832	.00898	-.01130	.00534
29. R-144	.01525	.03041	-.01042	.00106	.00901	.00441	.01326	.00977	.00061	.01253	.00954	.02805	.01380
30. R-145	.01488	.00565	-.01084	.03178	.00749	.02480	-.00329	-.02833	.00113	.05114	-.00601	-.01831	.00385
31. R-146	.02398	.08093	.00774	-.00661	.01076	.02062	-.00575	-.02058	.01181	-.00026	-.01917	.03929	.02813
32. R-147	.03688	.03778	.00737	.01422	.03782	.08044	.00713	.00795	.02148	.00824	.01602	.08266	.06151
33. R-148	.00865	-.01127	.04638	.01729	.04889	.05258	.00620	.02308	-.01250	.01004	.03597	.03167	.04531
34. R-149	-.00591	.06663	.04288	.01749	.01752	.01484	-.00927	-.01330	-.00124	.01424	.02036	.03742	-.00199
35. R-150	.02659	.06659	.14169	.07382	.01136	.00250	.00739	.07900	.04804	.02352	.08233	.06437	.06838
36. R-151	.13579	.00430	.06268	-.00788	.01173	-.03079	.04793	.00881	.03601	.03069	.07276	.02647	-.02251
37. R-152	.01076	.02273	.05799	.02427	.06903	.03226	.04835	.03299	.05921	.04502	.02657	.07605	.05001
38. R-211	.02126	-.00848	.01143	.00436	-.01611	-.00520	-.00636	-.00531	-.01858	.00021	.00495	.01310	.01164
39. R-212	-.02528	.00938	.00352	-.00434	.01252	.00425	.02688	-.00795	-.00844	-.00829	-.02166	.00026	-.00424
40. R-220	-.01365	.02676	.03551	-.01465	.02891	-.01708	.00566	.02041	.02634	-.00697	-.00682	-.01217	.07102
41. R-230	-.01913	-.01832	.00664	-.02045	.04934	-.00109	.01364	.03613	.02266	-.03951	-.02050	.01558	.05970
42. R-240	-.00812	-.02970	-.04500	.01134	-.00575	-.00901	.02707	-.00543	-.01254	-.01569	.01117	-.03342	-.00870
43. R-250	-.06687	.04713	.02506	.07147	.07139	.01323	-.01512	.08584	.04372	.04250	.05805	.02797	-.03592
44. R-260	.06344	-.02695	.03806	-.00179	.00359	.03592	.01949	.02123	.00401	.01206	.01537	-.00333	.01653
45. R-270	.00118	-.05161	-.02291	.01476	-.02462	.06129	-.01849	-.05327	-.01080	-.01552	-.02817	.02243	.00114
46. R-281	-.00568	.03769	.00997	-.00499	-.01477	.01203	-.00837	-.02200	-.01767	-.00424	-.01689	.03084	.01205
47. R-282	.06500	-.07188	.02505	-.01808	-.04303	.02069	.03640	-.01694	.00644	-.00375	-.01188	.02099	-.02556
48. R-290	-.00987	.02443	.03156	-.01737	.00439	-.00435	-.02092	.01122	.00238	-.02830	-.00823	.01057	-.02668
49. R-311	.02779	.02973	-.03610	.03913	.00530	.00797	-.01237	.02463	-.02694	-.02091	.13880	.01565	-.01001
50. R-312	-.01410	.03662	-.03933	-.00533	-.03479	-.02272	-.04465	-.00125	-.01473	.02187	-.00841	.00141	.02228
51. R-333	-.03320	.01273	.00176	.00992	.00499	-.00676	.01645	-.03982	.01795	.00695	.02008	-.05114	-.03790
52. Coll.[1]	-.03283	.06113	-.01150	.01187	.01742	.01026	.00399	.01418	-.02134	.00836	.00344	.00183	.00000

TABLE 2-15 (continued)

Independent Variable	Dependent Variables 27 R-142	28 R-143	29 R-144	30 R-145	31 R-146	32 R-147	33 R-148	34 R-149	35 R-150	36 R-151	37 R-152	38 R-211	39 R-212
1. R-101	-.01176	-.01813	.02328	-.01736	.00348	.03786	.03622	.01127	-.00647	-.03965	.00461	-.01298	.00470
2. R-102	-.00832	-.01453	.00909	-.04138	.00576	.02078	.02019	-.00614	.07184	.10337	-.02547	-.02978	.04709
3. R-103	.20074	.01503	-.03751	.00793	-.02246	.01043	-.02132	.08228	.06787	.07424	.07349	-.01838	.04526
4. R-104	.02363	.07221	.00032	-.09671	-.02977	-.02146	-.00370	.04765	.12566	.11640	.03712	-.04918	.02546
5. R-105	.06892	-.02155	-.02569	-.03197	-.09476	-.00218	-.04745	.00518	-.02808	-.08557	.06451	-.03112	.00005
6. R-106	.00464	.02143	.02474	-.02568	-.01371	.01652	.01672	.04454	-.01003	.05593	.03727	-.02749	.01968
7. R-107	.03552	-.00679	-.00705	-.01123	-.01964	.03641	-.01144	.04230	-.05197	-.02305	.05018	-.00286	.03263
8. R-108	.04570	-.00747	-.01844	.09410	.10676	.03766	-.04226	-.01424	-.04226	-.00384	.01146	.02261	.01377
9. R-109	.04041	-.01960	.01295	.01137	.00117	.02052	.01000	.01520	.00510	.00264	-.01326	-.01066	.00175
10. R-110	.02631	-.03416	-.02664	.00561	.02299	.01113	.02537	-.00408	.05479	-.01991	.03143	.01251	-.05056
11. R-111	-.04091	.00233	-.03579	-.04092	.00237	-.00116	.07184	.01627	-.00264	-.00420	.06299	-.01738	-.00945
12. R-112	-.08850	.02156	-.01066	.16798	.07983	.08522	.01578	-.07101	-.03133	.03267	-.03660	.02091	-.04336
13. R-113	.06917	.02003	.03061	.16565	.06559	.01532	.00975	-.04827	-.00271	-.07290	-.03212	.00531	.01033
14. R-114	.00265	.07277	.01992	.01566	.02676	.03190	.00962	-.00634	.01739	.13332	.00766	.02708	-.02600
15. R-115	-.09065	-.01867	.04577	.00685	.10406	.03766	-.01445	.08232	.05018	.00487	.01866	-.01245	.01112
16. R-131	.01906	.07490	-.02175	-.01824	.01382	.01020	.08248	.07350	.14814	.09840	.06604	.02329	.00579
17. R-132	.05980	-.02240	.00182	.04414	-.00973	.01623	.02538	.02475	.06371	-.01021	.02287	.00733	-.00589
18. R-133	-.00377	.03723	.01416	.00949	.01445	.03937	.06544	.02260	.00894	.01385	.05918	-.02470	.01550
19. R-134	.01413	-.00266	.00596	.02700	.02380	.07198	.06049	.01646	.00169	-.03127	.02377	-.00686	.00452
20. R-135	.07121	.07016	.01829	-.00366	-.00678	.00652	.00729	-.01050	.00511	.04972	.03638	-.00856	.02921
21. R-136	-.00427	-.00647	.01515	-.03539	-.02725	.00816	.03046	-.01692	.06130	.01027	.02789	-.00803	-.00970
22. R-137	.00808	.03020	.00112	.00166	.01839	.02592	-.01940	-.00185	.04383	.04933	.05884	-.03303	-.01212
23. R-138	.05772	.01102	.01736	.05711	-.00030	.00756	.01185	.01620	.01632	.03197	.03403	.00029	-.00904
24. R-139	.02483	.01399	.01555	-.00789	-.02670	.01729	.04992	.02725	.06718	.08915	.02362	.00787	-.02780
25. R-140	.02781	-.01469	.03813	-.02607	.04564	.07444	.03667	.04176	.04382	.02705	.05639	.01737	.00027
26. R-141	.03109	.00599	.01617	.00364	.02816	.04773	.04521	-.00191	.04011	-.01983	.03196	.01330	-.00391
27. R-142	**.64215**	.00830	.01928	.00218	.04141	.02275	.01784	.03174	-.00382	-.06444	.04001	.04553	.02896
28. R-143	.00576	**.39276**	.00886	-.00541	.00899	-.00846	.01017	.01619	.01888	.03298	.02886	.00421	.03394
29. R-144	.01282	.00848	**.34038**	.00484	-.00917	.03602	.01447	.00994	.01703	.00666	.01314	-.00123	-.00338
30. R-145	.00180	-.00642	.00601	**.53609**	.25983	.06327	.01848	-.00114	-.02881	-.06767	-.00047	.03110	-.00455
31. R-146	.03224	.01007	-.01073	.24510	**.49454**	.07145	.02599	.01382	-.02168	.01764	.01067	-.00709	.00836
32. R-147	.02283	-.01222	.05928	.07099	.09217	**.64370**	.04698	.05746	.03866	.01225	.02379	.00284	-.01063
33. R-148	.01392	.01143	.01698	.01749	.02607	.03654	**.49694**	.00975	.01897	.00264	.01448	-.02282	-.00228
34. R-149	.02570	.01886	.01211	-.00111	.01438	.04636	.01011	**.52357**	.01894	.04694	.03772	-.00394	.01908
35. R-150	-.00507	.03608	.03402	-.04038	-.03700	.05114	.03227	.03105	**.74651**	.08280	.04792	-.00770	.01231
36. R-151	-.05697	.04196	.00886	-.07255	.02005	.01079	.00299	.05126	.05515	**.57904**	.02963	-.01895	-.00668
37. R-152	.04870	.05061	.02404	-.00070	.01671	.02869	.02261	.05678	.04399	.04084	**.71954**	-.00150	.01087
38. R-211	.03102	.00412	-.00126	.02570	-.00621	.00193	-.01992	-.00332	-.00395	-.01461	-.00084	**.37071**	.20853
39. R-212	.02444	.04122	-.00429	-.00465	.00907	-.00894	-.00246	.01989	.00783	-.00637	.00753	.25831	**.55105**
40. R-220	-.03025	.08065	.00605	-.02540	.01197	-.01491	.01996	.02965	.07467	.07033	.04709	-.06072	.08589
41. R-230	-.00604	.02913	.04041	-.01088	-.02936	.00751	.03091	-.04797	.01013	-.03095	.01340	.14896	.12632
42. R-240	.09902	.05772	.00105	-.00694	.01183	-.02125	-.03450	-.02256	-.01035	-.01263	.00484	-.04425	.10065
43. R-250	.12649	-.11268	-.01426	-.01585	.00260	-.00740	.05093	-.07265	.08273	-.04013	.00257	.04225	-.00400
44. R-260	-.01298	.03136	-.01726	.03825	.05113	.02249	.01896	-.02533	.03661	.03231	-.00042	.10163	.01032
45. R-270	-.01627	-.04998	.06830	.10226	.01399	.06603	.00446	.01908	-.02750	-.05299	-.00533	.03002	-.02232
46. R-281	-.00273	-.00036	.02415	.00462	-.00199	.00452	.00531	.04448	.00297	-.01131	-.00390	.02519	.00101
47. R-282	.00803	.07959	.02075	-.00112	-.00956	.00669	-.01366	.01978	-.02825	-.03579	-.01163	-.02941	.01568
48. R-290	-.02681	.01743	.02809	-.02961	-.02613	.00956	-.00125	.01629	-.01428	-.00015	.00488	-.01192	.01920
49. R-311	.02173	-.00010	.02193	.01094	-.00081	-.00446	-.00083	.00094	-.01225	.00928	.01387	.03711	.02447
50. R-312	-.03178	-.01909	.03580	-.03179	-.03831	.01425	.02131	.03105	-.00845	-.02575	.01391	.05141	.02019
51. R-333	-.02936	-.00072	.02877	-.03526	.00765	-.00407	.02255	.09622	.01779	.02343	.01408	-.00342	.03817
52. Coll[c/]	.02313	-.01388	.02329	-.02295	.00403	.01968	.00603	-.01416	-.00831	.03825	-.01154	-.02170	.02362

TABLE 2-15 (continued)

Independent Variable	Dependent Variables: 40 R-220	41 R-230	42 R-240	43 R-250	44 R-260	45 R-270	46 R-281	47 R-282	48 R-290	49 R-311	50 R-312	51 R-333	52 Coll.c/
1. R-101	.02151	.02175	-.01940	.01591	-.02013	-.00715	.02122	-.05026	-.01108	-.02119	-.00827	-.01269	-.01551
2. R-102	.07142	.06328	-.01365	.11616	.01325	.01805	-.02242	-.03910	-.03107	.03302	.00031	-.04402	-.02233
3. R-103	.02695	.04310	.04307	.10527	.01117	-.07803	-.01385	-.01987	-.02017	-.03654	-.01098	.00879	.06610
4. R-104	.11164	.03031	.02536	-.02316	.01831	-.02153	-.02926	.01599	.00895	-.05213	-.00890	-.00196	.05605
5. R-105	-.11829	.03159	-.03734	.10088	-.05597	-.06061	.01932	.02079	.02480	.04640	.00692	-.03002	-.00397
6. R-106	.02805	-.09609	.15831	-.04366	-.04474	.01647	-.04908	.00789	.05022	.02643	.42634	.34427	.24804
7. R-107	.01997	-.01349	.01652	.01577	-.03549	.04939	-.01876	.00654	.00957	-.00095	.05394	.01310	.05678
8. R-108	-.04027	-.00532	.00791	.03612	.01543	.02604	-.00887	.00417	-.02101	-.00850	-.01525	.00542	.01668
9. R-109	-.01169	.02105	.01291	.05301	.00818	.02645	-.01355	-.02674	.03665	.05946	-.00725	.03143	.00336
10. R-110	-.03423	-.04048	-.05032	.00821	.05743	.10053	-.03411	.03486	-.01901	-.01901	-.00725	.01424	-.00944
11. R-111	-.07225	-.04384	-.05684	-.05738	.09236	.12016	-.01681	.03957	-.02587	.00892	-.00485	.03810	-.06501
12. R-112	-.00769	.01891	-.03085	-.02609	.06463	.11071	.01342	.04454	-.04271	.05160	-.02552	-.04027	-.03802
13. R-113	-.00733	.02188	.01120	-.00133	.00810	.03903	.00056	.00020	-.02826	.03223	-.00335	-.01965	-.03586
14. R-114	-.01048	-.01111	-.00537	-.02668	.04278	.00065	-.00569	.04705	-.00728	.01536	-.00411	-.01638	-.03294
15. R-115	.02367	-.01226	-.02263	.02167	-.02094	-.03260	.04351	-.05995	.02075	.01894	.01231	.00724	.07069
16. R-131	.04358	.00617	-.04758	.01599	.04103	-.02008	.01597	.02898	.03720	-.03190	-.01834	.00139	-.01844
17. R-132	-.01484	-.01568	.00990	.03763	-.00159	.01067	-.00660	-.01727	-.01689	.02854	-.00205	.00646	.01572
18. R-133	.02671	.03449	-.00457	.03428	.00291	-.01624	-.01781	-.03748	.00389	.00352	-.01221	.00296	.02103
19. R-134	-.01356	-.00066	-.00617	.00346	.02505	.03476	.01247	.01549	-.00332	.00456	-.00681	-.00345	.01065
20. R-135	.00459	.00837	.01891	-.00037	.01388	-.01071	-.00886	.02783	-.01629	-.00722	-.01371	.00857	.00423
21. R-136	.01859	.02491	-.00426	.04065	.01699	-.03466	-.02615	-.01455	.00982	.01616	-.00041	-.02331	.01689
22. R-137	.02822	.01837	-.01157	.02434	.00377	-.00826	-.02470	.00650	.00245	-.02077	-.00597	.01235	-.02987
23. R-138	-.00568	-.02435	-.01101	.01799	.00863	-.00903	-.00451	-.00268	-.02213	-.01226	.00677	.00364	.00891
24. R-139	-.00653	-.01486	.00922	.02891	.01294	-.01927	-.02361	-.01073	-.00757	.09578	-.00307	.01236	.00454
25. R-140	-.00972	.00943	-.02300	.01162	-.00234	.01260	.03216	.01581	.00811	.00900	.00041	-.02626	-.00159
26. R-141	.04891	.03112	-.00516	-.01286	.01000	.00056	.01083	-.01660	-.01764	-.00496	.00567	-.01677	.03006
27. R-142	-.02675	-.00404	.07543	.05615	-.01008	-.01027	-.00315	.00669	-.02276	.01384	-.01068	-.01669	.02674
28. R-143	.04956	.01355	.03055	-.03599	.01693	-.02193	-.00029	.04011	.01028	-.00004	-.00448	-.00028	-.01115
29. R-144	.00356	.01798	.00053	-.00436	-.00891	.02867	.01852	.01150	.01585	.00926	.00797	.01087	.01790
30. R-145	-.02071	-.00600	-.00436	-.00601	.02451	.05326	.00440	-.00077	-.02073	.00890	-.00681	-.01652	-.02188
31. R-146	.00824	-.01529	.00701	.00093	.03090	.00687	-.00178	-.00620	-.01858	-.00040	-.01001	.00338	.00362
32. R-147	-.01323	.00504	-.01625	-.00341	.01753	.04185	.00523	.00560	.00814	-.00285	.00480	-.00232	.02306
33. R-148	.01377	.01614	-.02051	.01827	.01149	.00220	.00478	-.00889	-.00085	-.00041	.00557	.01000	.00544
34. R-149	.02123	-.02600	-.01391	-.02704	-.01593	.00976	.04156	.01335	.01120	.00048	.00849	.04427	-.01325
35. R-150	.08766	.00900	-.01047	.05048	.03775	-.02306	.00456	-.03127	-.01610	-.01036	-.00377	.01342	-.01275
36. R-151	.05499	-.01831	-.00851	-.01631	.02219	-.02959	-.01154	-.02638	-.00012	.00522	-.00765	.01177	.03909
37. R-152	.05075	.01093	.00449	.00144	-.00040	-.00411	-.00549	-.01182	.00505	.01072	.00570	.00975	-.01628
38. R-211	-.03659	.06793	-.02296	.01323	.05379	.01292	.01980	-.01671	-.00690	.01610	.01177	-.00133	-.01709
39. R-212	.06410	.07135	.06470	-.00155	.00676	-.01189	.00099	.01103	.01376	.01315	.00573	.01831	.02304
40. R-220	**.69300**	.13907	.06676	.08317	.09663	.06167	.15594	-.05821	.02137	-.03317	-.02724	-.00710	-.02587
41. R-230	.18376	**.77888**	.17902	.07652	-.01672	-.01918	-.03650	-.03976	.04438	.16226	.11793	.01576	.03386
42. R-240	.07751	.15730	**.74321**	.09868	.06851	.03008	-.00569	.04942	.04727	.03634	.04593	.05170	.04093
43. R-250	.16002	.11142	.16352	**.85431**	.22357	.06202	-.03198	.04022	.17279	.08491	.00563	-.05163	.07016
44. R-260	.11001	-.01440	.06717	.13229	**.73720**	.08481	.04124	.07787	.05251	.01938	-.00245	.01402	.00493
45. R-270	.08665	-.02032	.03628	.05970	.10432	**.79300**	.24631	.28775	.21251	.03368	.01165	-.00545	-.02759
46. R-281	.11951	-.02117	-.00375	-.01274	.02776	.13480	**.56727**	.18595	.06009	.01095	.01312	.01703	-.01754
47. R-282	-.06175	-.03192	.04515	.02218	.07255	.01796	.25738	**.71415**	.21446	.02544	.01607	.02259	-.02082
48. R-290	.02226	.03498	.04240	.09354	.04804	.15806	.08166	.21057	**.70779**	.05435	.02367	.00171	.01653
49. R-311	-.04607	.17055	.04346	.06130	.02364	.03340	.01984	.03331	.07247	**.79106**	.17426	.03862	-.03541
50. R-312	-.07169	.23493	.10413	.00770	-.00569	.02190	.04508	.03970	.05978	.33026	**.89585**	.40155	.09714
51. R-333	-.01105	.01856	.06929	-.04176	.01917	-.00605	.03458	.03314	.00255	.04327	.23737	**.81609**	.04863
52. Coll.c/	-.01979	.01960	.02697	.02790	.00331	-.01507	-.01751	-.01502	.01215	-.01950	.02823	.02391	**.56624**

a/The multiple correlation coefficients are the values in the principal diagonal. The other values in the table are beta weights for the dependent variable shown at the head of the column.

b/This group consists of the 17949 twelfth-grade boys (in 814 high schools) who replied to the one-year follow-up questionnaire in time to have their follow-up data incorporated in the Project TALENT master tape by August 1963.

c/This is a dichotomous variable, entry-vs.-non-entry into college within one year of high school graduation:

1 = entry
0 = non-entry

The results of the uniqueness analyses of the four sets of Subsample-0 data are summarized in Table 2-13. Table 2-14 shows the results based on the 52 variables of Table 2-12. Tables 2-13 and 2-14 show not only the uniqueness coefficients but also the corresponding values corrected for attenuation. These values, U'^2_∞, are obtained by the following formula:

$$U'^2_\infty = \frac{U'^2_i}{r_{ii}} \qquad (b)$$

Table 2-15 shows the multiple regression coefficients (beta weights) corresponding to the multiple correlation coefficients shown in Table 2-14.

The results of the uniqueness analyses are generally compatible with the inferences based on an inspection of the raw correlation coefficients in conjunction with the reliability coefficients. With the exception of Vocabulary I (R-102), Scientific Attitude (R-109), Mathematics Information (R-106), and Mathematics Part II (R-312), most of the tests apparently possess some uniqueness. Among the tests that have a notably high amount of it are Creativity (R-260), Word Functions in Sentences (R-240), and Visualization in Two Dimensions (R-281). Among the tests whose uniqueness coefficients appear to be very low are Biological Science Information (R-108), Punctuation (R-233), and in grade 9, Literature Information (R-103).

The score on the ten "miscellaneous" items (R-152) in Part II of the Information Test turns out to have no uniqueness. This is quite in accordance with expectation, since by definition, these items do not constitute a homogeneous scale. Scale 152 consists of the items that did not belong in any of the other scales.

The Screening Scale (R-101) turns out to have an unusually high uniqueness coefficient. This is probably in part a statistical artifact owing to the fact that it is extremely easy. But its uniqueness is not wholly an artifact. The lack of difficulty of the items is probably the very thing that results in the representation of some non-intellective traits in the complex of factors accounting for less than perfect scores on this scale.

Inspection of Tables 2-13 and 2-14 shows that some of the uniqueness coefficients are negative. This means either that the shrunken multiple R is substantially greater than the cross-validated correlation for which it is a substitute or that the reliability coefficient for the test is an underestimate. The latter seems the more likely explanation since a large spurious inflation of the multiple correlation coefficients is not likely in view of the large number of cases.

Formula 3 can yield a negative uniqueness coefficient only if the following inequality holds:

$$\frac{s^{R^2} \cdot r_{cc}}{r_{ic}^2} > \frac{r'_{ii}}{r_{ii}} \qquad (5)$$

in which r'_{ii} represents the reliability estimate used in Formula 3 and r_{ii} represents the true reliability coefficient. (All other notation in Formula 5 has the same meaning as when used in previous formulas.)

Several of the negative uniqueness coefficients occur for scales in Part II of the Information Test. Since KR-20 reliability coefficients were used for these scales, this seems like fairly definite evidence that this formula yields underestimates of the reliability of some of these scales.

Aside from the variables indicated above, almost all the tests in the TALENT battery appear to have some degree of uniqueness.

Tests and Groups of Tests

Introduction. To investigate the mental abilities that the Project TALENT tests have in common, a series of graphs (Figures 2-1 through 2-17) has been prepared showing the correlations of scores on each of several tests with scores on more than 30 other tests. The correlations are those in Tables 2-7-a, b, j, and k (Subsample 0, grades 9 and 12). Most of the graphs are based on grade-12 boys or girls or both; Figures 2-15 and 2-17 are for grade 9. Self-correlations (reliability estimates) are included in the graphs if they are available. A correlation between a total score and one of its component parts is expressed as a coefficient corrected for spuriousness attributable to the correlation of measurement errors in common. (These corrected correlations are shown in Table 2-10).

Two tests that have the same correlations with every other test in a set have the same common factors in the same proportions. In other words they measure exactly the same thing except for their unique components. The same thing is true of two tests whose correlations with other tests are not equal, provided they are proportional. The extent to which this condition exists for a pair of tests can be determined by comparing their correlational patterns on the same graph. A primary purpose of Figures 2-1 through 2-17 is to facilitate this sort of comparison.

When the uniform ratio of the correlation coefficients of the two variables with any third variable holds even in the special cases where one of the correlation coefficients is the self-correlation (i.e., the

reliability coefficient) and the other is the correlation between the two variables being compared, the two tests are essentially identical in regard to what is being measured by their reliable variance; in other words, neither has any unique reliable variance, and the correlation between them corrected for attenuation equals unity.

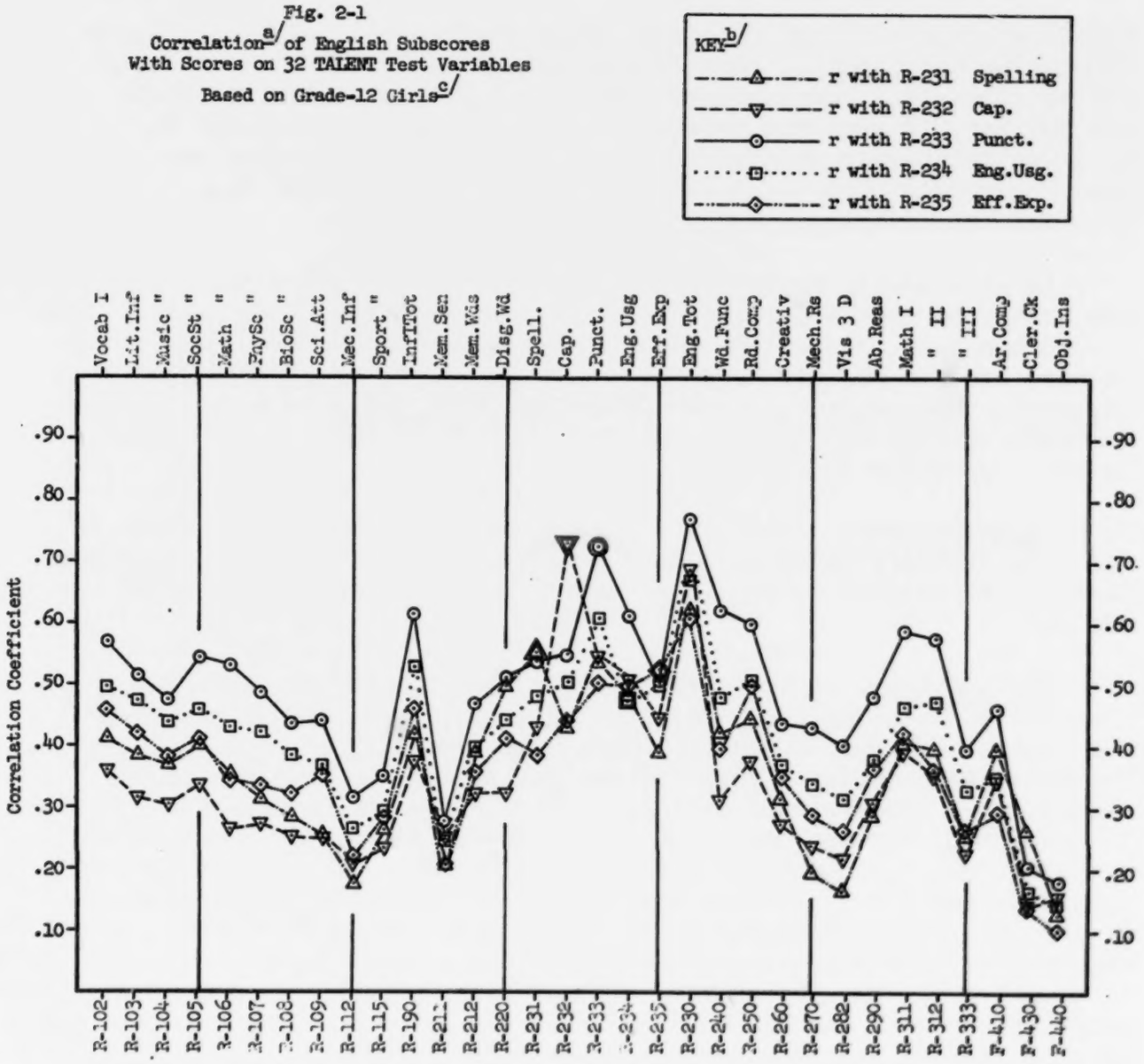
In examining these patterns one should bear in mind that the correlations are based on over 3,000 cases and that they are, therefore, very stable. Their sampling errors and the sampling errors of differences between them are likely to be extremely small; hence, small shifts in pattern are likely to be meaningful.

English Test. The English Test yields not only a total score (R-230), but also five separate subscores: Spelling (R-231), Capitalization (R-232), Punctuation (R-233), English Usage (R-234), and Effective Expression (R-235). There appears to be a very close relationship among these five skills. This can be seen from Figure 2-1, which shows graphically their intercorrelations with 27 other TALENT variables (for grade-12 girls). Perhaps the most striking thing about the five patterns is how very similar they are. Students who are good in one area tend to be good in all and students poor in one tend to be poor in all. However the five patterns are not identical; every one of the five skills appears to have some unique reliable variance, however slight it might be. To estimate the amount, it is necessary to have accurate estimates of the reliability coefficients. As has already been pointed out, there is good reason to suspect that most of the reliability estimates that are available are at least a little too low. We have definite evidence that some of them (notably that for English Usage) are substantially underestimated.

Spelling. The Spelling score has surprisingly little uniqueness. It does appear to have some, on the basis of the correlational data, but the amount is very slight unless the KR-21 formula gives a gross underestimate of its reliability (which is a possibility, but seems relatively unlikely). Spelling has long been thought to be a cognitive ability not closely correlated with other cognitive abilities among groups moderately homogeneous in general ability. A question must therefore arise as to whether the TALENT data negate the somewhat contrary indications of past research and even prevailing public opinion on the subject. (Almost every literate person can cite the example of some acquaintance who is considered to be very intelligent and to have excellent verbal ability but who is a "perfectly terrible speller." Some of these examples probably fall in the category of rationalization by people who themselves are poor spellers, but others almost certainly have some factual foundation.) How, then, do we account for the discrepancy between the findings of Project TALENT, based on a well-established sample of thousands of cases and the weight of past evidence? For want of a better hypothesis, let us propose tentatively that the explanation lies in the fact that what the TALENT test measures is spelling of relatively common words (the test is limited to words in

Fig. 2-1

Correlation[a] of English Subscores
With Scores on 32 TALENT Test Variables
Based on Grade-12 Girls[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

the first 10,000 in the Thorndike-Lorge Word List[1]), whereas a person's reputation as a good or poor speller often stands or falls on his ability to spell less common words correctly. To push this hypothesis a bit further, if students receive spelling drill in school, it is likely to be on relatively ordinary words, whereas the really good speller can spell correctly words he hasn't been drilled on, even if they are words to which the ordinary rules of spelling do not apply.

An alternative hypothesis which seems somewhat less plausible to the writer is that the relationship between ability to recognize that a word has been misspelled (which is what the TALENT test measures directly) and the ability to spell correctly is not as close as had been supposed. The evidence in the literature that there is a close relationship between ability to spell and ability to recognize misspelling is too convincing to ignore.

Capitalization. The ability to capitalize correctly apparently has some specific variance (a small amount), and as evidence presented in the next chapter shows, it is generally one of the best-learned skills.

Punctuation. Of the five subtests, Punctuation has the highest correlation with English Total. This is probably because in most groups Punctuation has the largest standard deviation of any of the English subtests and because, except for Capitalization, it has the highest reliability. However the correlations of Punctuation with other tests in the TALENT battery have some rather interesting implications. The correlations of Punctuation with some of the tests in areas that directly or indirectly involve some degree of reasoning, e.g., mathematics (R-106, R-312), Word Functions in Sentences (R-240), Mechanical Reasoning (R-270), and Visualization in Three Dimensions (R-282), appear to be slightly (though probably significantly) inflated compared with its correlations with tests that do not involve any degree of reasoning. In this respect the Punctuation scores differ from other subscores of the English Test; for instance, the Capitalization scores (despite the superficially close relationship between punctuation and capitalization). The explanation seems to be that correct capitalization is a very simple task, requiring little more than the memorization of a few simple rules concerning what categories of words are to be capitalized. Punctuation, on the other hand, requires not only knowledge of the rules (e.g., A period is used at the end of a declarative sentence.) but also the ability to reason out whether the rule applies (e.g., whether a particular set of words constitutes a complete declarative sentence).

English Usage and Effective Expression. These two subtests appear to have more in common in terms of both surface similarity of content and statistical characteristics than any other pair of English subtests.

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[1]Thorndike, E. L. and Lorge, I. The Teacher's Word Book of 30,000 Words. New York: Bureau of Publications, Teachers College, Columbia University, 1944.

Both subtests measure the best way of expressing a given idea, the chief difference being that the Effective Expression Test is concerned with complete sentences while the English Usage Test is concerned with shorter units (brief segments of a sentence).

Measures of Verbal Ability. The correlations of three conventional aspects of verbal ability--namely, vocabulary, reading comprehension, and English achievement (as measured by R-102, R-250, and R-230, respectively)--are graphed in Figure 2-2. Reading and vocabulary have almost identical patterns except that reading appears to have a substantial specific component, while the specific component of vocabulary, if it exists at all, is almost negligible. Both reading and vocabulary have substantial correlations with all kinds of information and also with other cognitive abilities, such as mathematics. But vocabulary, lacking a sizable specific component, is more nearly a pure measure of the so-called "general verbal factor" than any other test in the battery. Knowledge of word meanings is a very pervasive kind of knowledge. Inspection of the correlation matrices and the reliability data reveals that on the whole vocabulary has higher correlations with most other cognitive variables in the battery (particularly after correction for attenuation) than other variables have. The English Test (R-230) has a pattern of correlations somewhat different from the patterns of reading comprehension and vocabulary, especially with respect to its correlations with its own subtests. This suggests that learning to master use of the English language (in writing and speaking) has some other components besides ability to comprehend it, which, of course, is what reading comprehension and vocabulary both measure.

The fourth test that is shown on Figure 2-2, Word Functions in Sentences (R-240), is of a type less common than the other three. It can be regarded as a measure of another aspect of English mastery; namely, understanding of and feeling for grammatical structure; but it is an indirect measure, satisfactory performance on which is not supposed to require formal instruction in grammar.[1] Successful performance on this test, as on the Punctuation Test, probably requires a certain amount of logical analysis. Therefore, the correlations, as in the case of Punctuation, tend to peak in some of the areas that involve reasoning--mathematics (R-106), Abstract Reasoning (R-290), Mechanical Reasoning (R-270), etc. Otherwise, the pattern for Word Functions in Sentences follows the pattern for English rather closely. Not at all surprisingly in view of its novel item type and goal, the Word Functions in Sentences Test seems to have a very substantial specific element.

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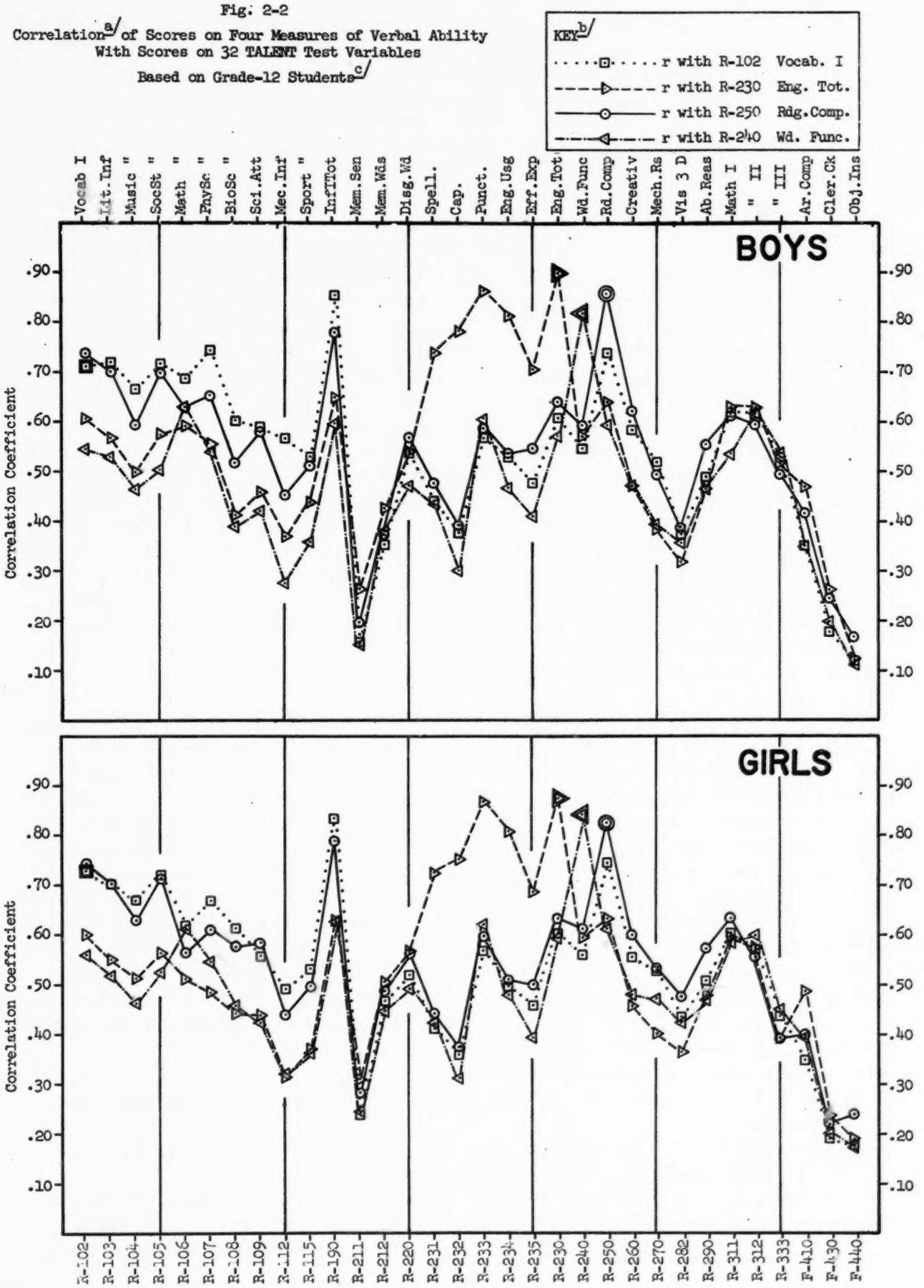
[1] For a full discussion of the rationale underlying this test see the following:

Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study.

Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. "Design for a Study of American Youth," The Talents of American Youth, Vol. 1. Boston: Houghton Mifflin Co., 1962.

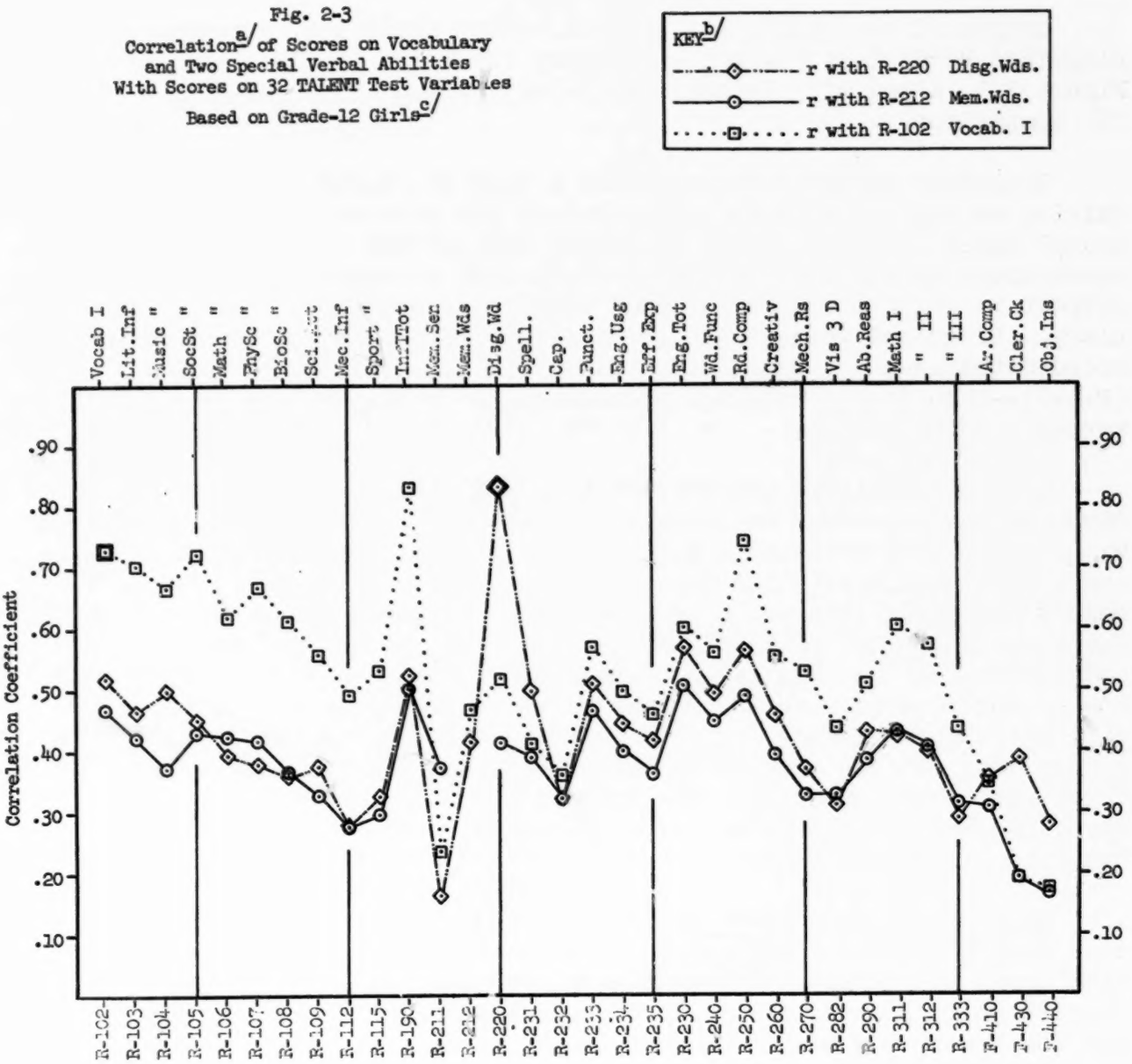
Fig. 2-2

Correlation[a] of Scores on Four Measures of Verbal Ability With Scores on 32 TALENT Test Variables Based on Grade-12 Students[c]



a/ b/ c/ See footnotes on Fig. 2-1.

Fig. 2-3
Correlation[a] of Scores on Vocabulary and Two Special Verbal Abilities With Scores on 32 TALENT Test Variables Based on Grade-12 Girls[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Graphs of two additional special verbal abilities, measured by the Disguised Words Test (R-220) and Memory for Words (R-212), are shown in Figure 2-3, along with Vocabulary (R-102), which is included as a basis for comparison.

Disguised Words is a measure of a kind of "verbal fluency" not requiring an especially complex vocabulary but calling for considerable mental speed.[1] It is almost certainly the substantial element of speededness in the Disguised Words Test that accounts for the chief respect in which its correlational pattern departs from that for Vocabulary. Disguised Words tends to have more in common with the highly speeded tests--e.g., Clerical Checking (F-430), Object Inspection (F-440)--than does Vocabulary or most of the other tests with a heavy verbal loading.

The correlational pattern for Memory for Words, like that for Disguised Words, seems to resemble the Vocabulary pattern rather closely with a couple of noticeable exceptions. At least two variables, Spelling (R-231) and Capitalization (R-232), have higher correlations with Memory for Words than would be expected if its factorial structure were identical with that of Vocabulary. Presumably mastery of both spelling and capitalization requires a certain amount of memorization--memory of how to spell certain words and memorization of the arbitrary rules of capitalization. Memory for Words, then, is not a misnomer. The test is not just another measure of the same kind of verbal ability that the Vocabulary score measures. On top of that kind of ability the Memory for Words Test superimposes the requirement of a definite ability in one kind of memorization.

Measures of Memorization. The foregoing discussion leads directly to a consideration of the extent to which different kinds of memorization tasks are related. Figure 2-4 throws some light on this question. Despite their seeming dissimilarity the Memory for Words Test (R-212) and the Memory for Sentences Test (R-211) apparently have much in common. The correlation between them is substantial. As a matter of fact, it is higher in almost every grade-and-sex group than the correlation between Memory for Sentences and any other variable. (The sole exception occurs for grade-9 boys, where the English Total (R-230) correlation is slightly higher.) Furthermore, if the correlations are corrected for attenuation, the correlation of Memory for Words also tends to be higher with Memory for Sentences than with any other test. The functional similarity between the two tests is a little surprising. Although both call for rote memorization and short-term recall, the materials to be memorized differ markedly in nature, and therefore presumably require quite different techniques for successful memorization. Possibly the basis for the correlation lies in the fact that persons who are good at rote memorization owe their successful performance in this sort of task to their ability to choose the most appropriate technique for the material at hand.

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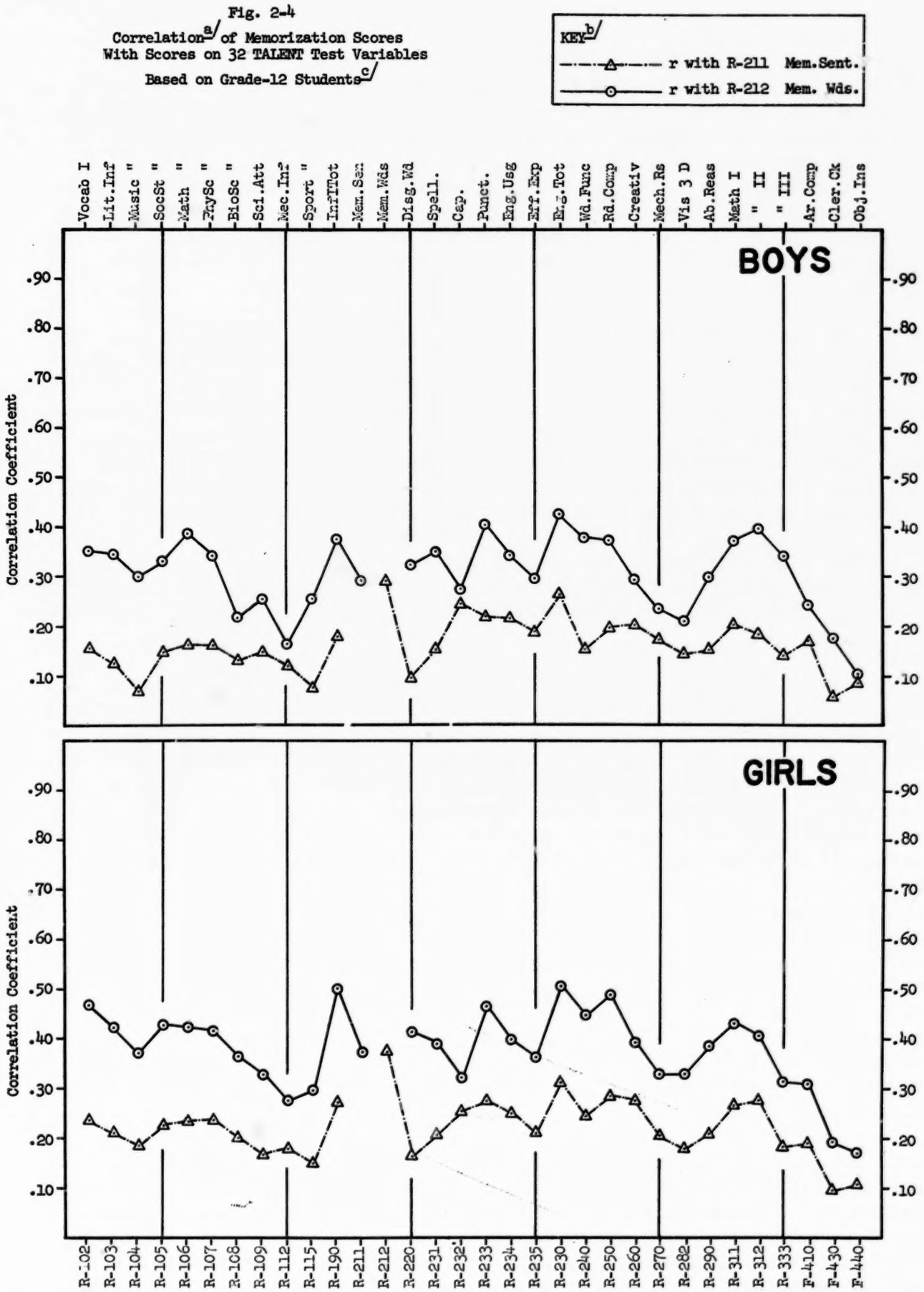
[1] The term fluency is used loosely here, rather than in the strict Thurstonian sense.

Fig. 2-4

Correlation[a] of Memorization Scores
With Scores on 32 TALENT Test Variables
Based on Grade-12 Students[c]



a/ b/ c/ See footnotes on Fig. 2-1.

Inspection of Figure 2-4 reveals that while the two tests have much in common they are not identical in factorial structure. The correlation of the Disguised Words Test (R-220) with Memory for Words is somewhat higher than would be expected on the basis of the correlation of the former with Memory for Sentences. And the reverse is true, at least in the case of the boys, for Mechanical Information (R-112). There also appears to be a definite tendency for Capitalization (R-232) to have a higher correlation with Memory for Sentences than would be expected on the basis of its correlation with Memory for Words. The tendency is manifested to a greater or lesser degree at all grade levels.

The general similarity of the two memory tests is due partly, but certainly not wholly, to the verbal element in both. They have much in common with Vocabulary (R-102), as may be inferred from a joint consideration of Figures 2-3 and 2-4, but as was mentioned in the previous section, there are several points of dissimilarity. The memory test has higher correlations with certain English subtests, particularly spelling and capitalization, than would be expected if the memory and vocabulary measures had exactly the same factorial composition.

The correlations in Table 2-12 point up one further way in which Memory for Sentences differs from Memory for Words. Table 2-12 shows intercorrelations three ways--within school (r_{ab}), between school means ($r_{\bar{A}\bar{B}}$), and among all students (r_{AB}). Because the student body of a school does not behave like a random sample of American high-school students in general, the correlations of school means of most cognitive functions tend to be higher than the corresponding correlations of students' scores, and the correlations within schools somewhat lower. But Memory for Sentences (unlike Memory for Words) is something of an exception to this general rule. Its "between-schools" correlations with many cognitive variables are definitely lower than its "within-schools" correlations. The reason for this departure from expectation is not known. One hypothesis is that it is merely a manifestation of the fact that skill in the kind of task called for by the Memory for Sentences Test has less utility and is less closely related to the factors determining socio-economic level than most of the other cognitive abilities measured. (The relevance of this hypothesis lies in the fact that geographic and other circumstances operate in such a way that socio-economic level is one of the prime ways in which the student bodies of schools differ.) Whether the two memorization tests have substantial specific variance is not known at this time, since reliability coefficients are not yet available for them.

Two More Variables That Have High Loadings on Verbal Ability. The substantial similarity between reading comprehension and vocabulary in regard to correlation pattern has already been pointed out. Figure 2-5 shows graphically the correlation patterns of these two variables and, for comparison with them, the patterns of two other variables: Information Test, Part I Total (R-190) and Scientific Attitude Test (R-109).

The pattern in Figure 2-5 suggests that both of these scores are largely measures of general verbal ability, although both, on the surface, appear to be measuring something else. Perhaps, in the interests of accuracy, they can best be regarded as indirect measures of verbal ability.

Total score on the Information Test, Part I, has its highest correlation with reading (except for the slightly higher correlations with scores on some of its component scales). The fact that reading is a source of much information may account for a large part of the high correlation. But of course the relationship is due in part to the fact that both the ability to comprehend what one reads and the ability to master facts, in other words to acquire information, have very heavy components of general verbal ability, since both require memory for word meanings.

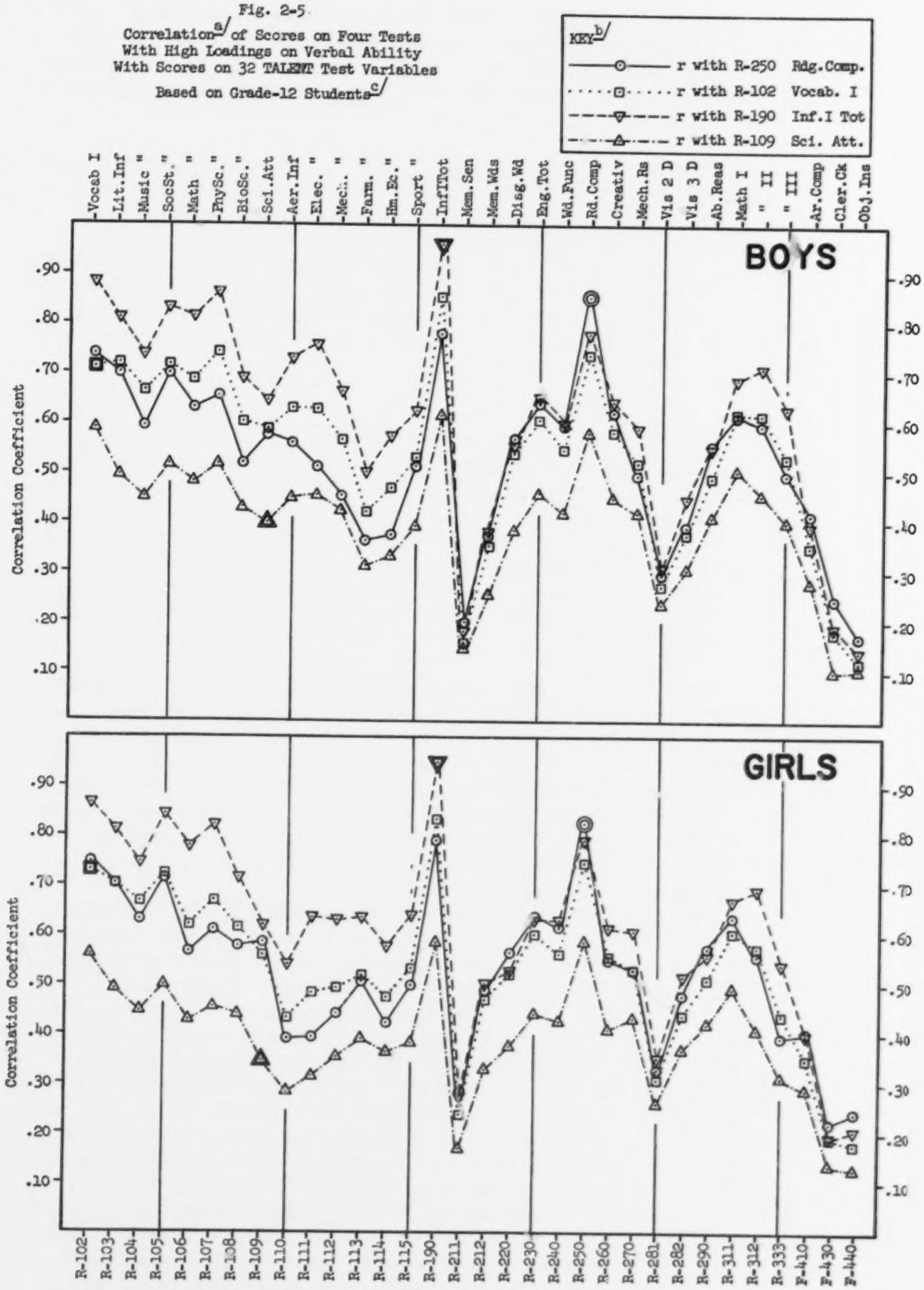
But as might be expected, Information Total is by no means purely a measure of verbal ability. It would be quite strange if it were, since it incorporates so many different types of information, and since the relative amount of information acquired in different areas, as well as the total amount, depends in part on interest and in part on opportunity, rather than wholly on ability. Thus several tests that measure strictly verbal skills (Disguised Words, Spelling, Capitalization, Effective Expression, and English Total) have definitely higher correlations with Vocabulary than with Information Part I Total (after correction for attenuation).

Scores on the Scientific Attitude Test seem to have their highest correlation with vocabulary of the kind measured in the Vocabulary Scale in the Information Test, Part I. This correlation coefficient corrected for attenuation is about 1 (undoubtedly something of an overestimate in view of the fact that the reliability estimates are probably too low). Not at all surprisingly, Scientific Attitude has a very high correlation with Reading Comprehension. Reading comprehension is directly involved in the Scientific Attitude items.

The fact that the Scientific Attitude score seems to be closely related to verbal ability might be interpreted to mean that the degree to which a person is superstitious and "unscientific" in his attitudes depends almost wholly on his level of verbal ability. This would not be correct, however, since correlation does not require causation. It is probable that the more word knowledge and reasoning facility an individual has, the better he can draw conclusions of the type included in the Scientific Attitude Test. Whether a person has superstitious fears, phobias, and fetishes or not, the more intelligent he is the more likely he is to recognize these tendencies for what they are and to feel constrained to reject them intellectually, or at least to act publicly as if he did not have them, even though emotionally he may cling to them. It also seems probable that, at least among the better educated, superstition is a very personal sort of thing. A person who does not have any of the common superstitions (such as that walking under ladders and having one's path crossed by a black cat bring bad

Fig. 2-5

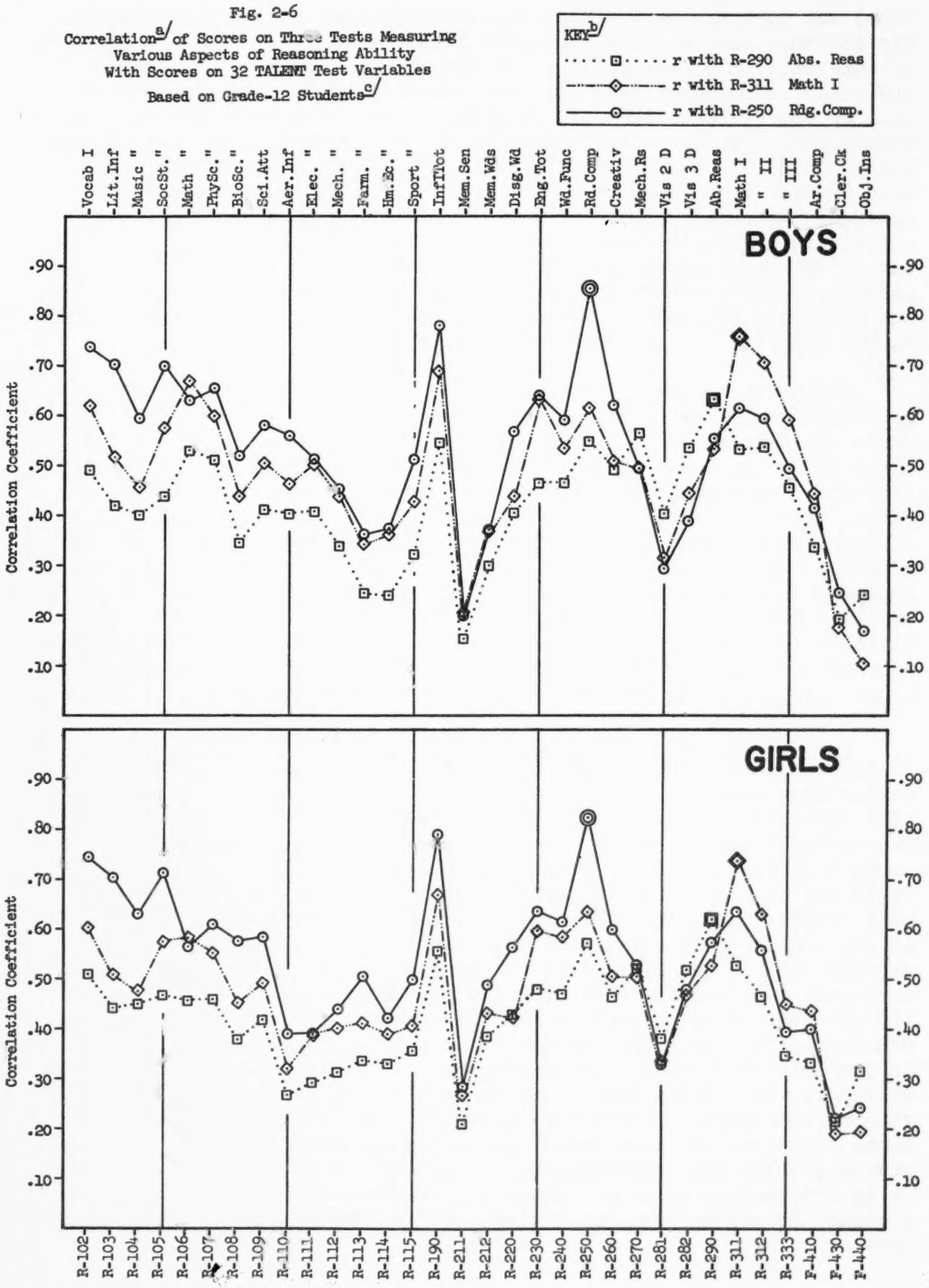
Correlation[a] of Scores on Four Tests
With High Loadings on Verbal Ability
With Scores on 32 TALENT Test Variables
Based on Grade-12 Students[c]



a/ b/ c/ See footnotes on Fig. 2-1.

Fig. 2-6

Correlation[a] of Scores on Three Tests Measuring Various Aspects of Reasoning Ability With Scores on 32 TALENT Test Variables Based on Grade-12 Students[c]



a/ b/ c/ See footnotes on Fig. 2-1.

luck) may have his own private superstition that nobody else shares--for instance that a certain necktie brings good luck. This specificity of superstition probably helps explain why the internal consistency of the scale is comparatively low, as indicated by Kuder-Richardson reliability coefficients that are relatively low for a scale of its length. Furthermore, since the test items cannot be counted on to unearth anything so individual as these private superstitions except by chance, what remains to be measured by the Scientific Attitude Scale is the residual "general factor." Scientific Attitude thus has its highest correlations with Vocabulary and with Reading Comprehension. It also has an extremely high correlation with Biological Science Information--probably because the latter has relatively little unique variance, being primarily (though not wholly) a cluster of items measuring general verbal ability, as discussed later in this chapter.

Supportive evidence for the theory that Scientific Attitude score is largely a matter of general verbal ability lies in the fact that there are several variables of a purely verbal character whose correlations are even higher (after correction for attenuation) with Scientific Attitude than with Vocabulary; among them are Punctuation, English Usage, Effective Expression, Word Functions in Sentences, and Reading Comprehension. Spelling, on the other hand, has a higher correlation with Vocabulary than with Scientific Attitude. And a few tests whose reasoning component looms larger and whose verbal component is somewhat smaller (at least on the surface) have higher correlations with Scientific Attitude than with Vocabulary; for instance: Abstract Reasoning, Arithmetic Reasoning, Mechanical Reasoning, Visualization in Two Dimensions, Visualization in Three Dimensions, Creativity.

Tests That Measure Various Aspects of Reasoning Ability. The Arithmetic Reasoning Test (Mathematics I, R-311) and the Abstract Reasoning Test seemingly measure two quite disparate abilities. The former test consists of quantitative problems couched in verbal terms while the latter consists of nonverbal problems concerned with relationships among diagrams. But as seen in Figure 2-6, these two very different tests are really quite similar in their common factors (although both have substantial unique factors). Perhaps the nature of the similarity is implied in their names, both of which involve the word "reasoning." Another clue to the similarity is provided by the third variable shown in Figure 2-6, Reading Comprehension (R-250). It will be observed that the patterns of both Abstract Reasoning and Arithmetic Reasoning resemble the Reading Comprehension pattern to a substantial degree. This is probably attributable in large part to the element of reasoning involved in the reading test. Instrumental, too, is the large element of reading comprehension directly involved in the Arithmetic Reasoning Test. Solution of these items requires comprehension of the verbally stated problem and determination of the correct method of solving it. It is interesting to note, however, that even the strictly nonverbal Abstract Reasoning Test has a very sizable correlation with the reading test.

Note further that it can be inferred that the correlational patterns of all the variables in Figure 2-6 have a strong general resemblance to those in Figure 2-5 (since Reading Comprehension appears in both). While each of these six variables shows significant and meaningful deviations from the over-all pattern and while most of them also have sizable components of unique reliable variance, there is evidence that they all share some common element--probably "general verbal ability"--that permeates the diverse kinds of skill and knowledge required by the various tests. But it is their specific elements and their variations from the general pattern that give each of these measures its own unique importance, so that no single one of them can fully replace all the rest.

Information in Social Studies and the Humanities. Figure 2-7 shows the correlational pattern of three subscores of the Information Test--Literature Information (R-103), Music Information (R-104), and Social Studies Information (R-105). Vocabulary (R-102) is also shown, as a reference variable. The patterns are all very much alike, although each of the variables also has a small unique component in its reliable variance.

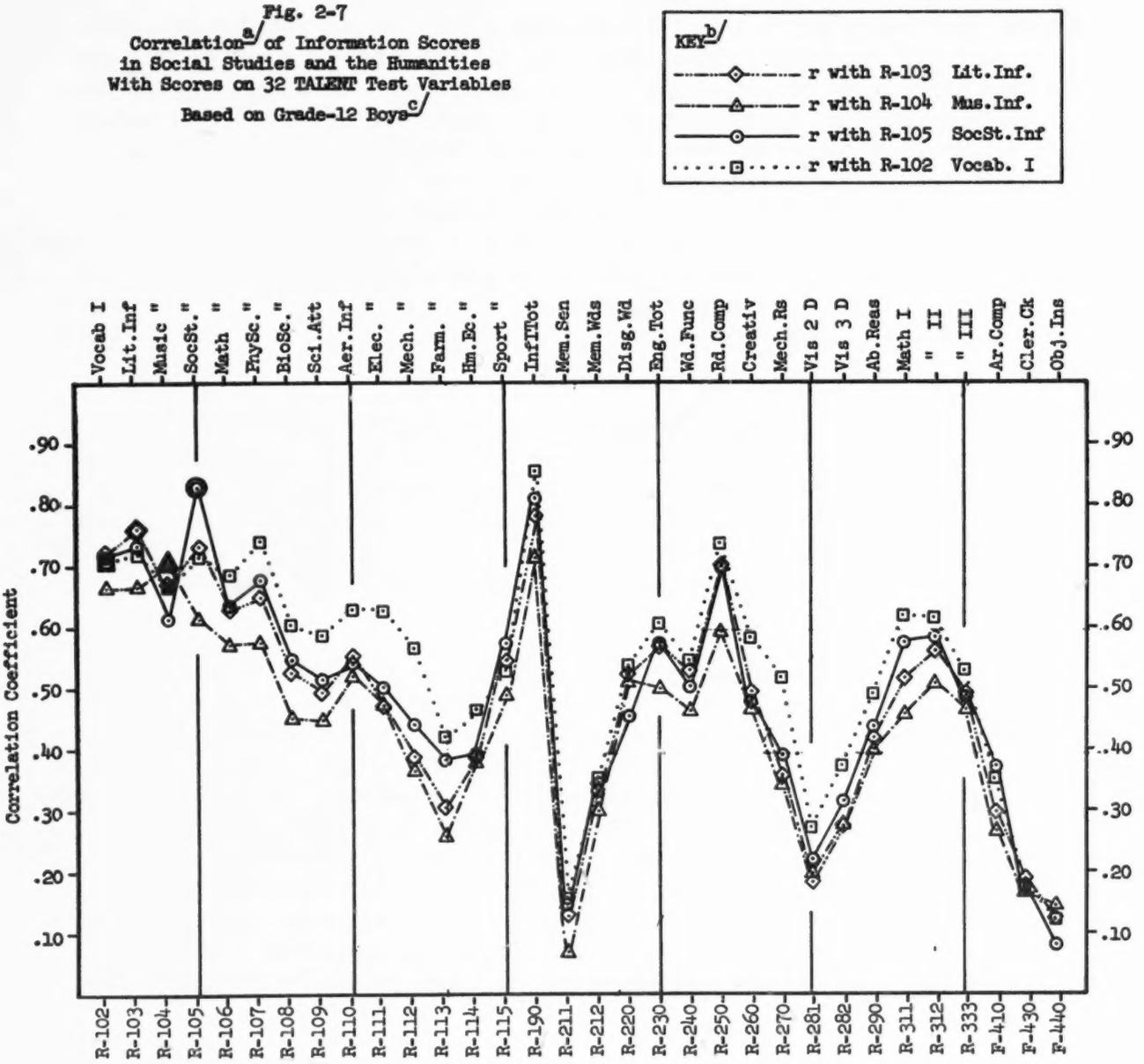
Inspection of the correlations in Table 2-12 suggests that several of the variables in Part II of the Information Test follow the same pattern; among them, Art (R-131), Law (R-132), Foreign Travel (R-137), Theater and Ballet (R-150). These variables, like those in Figure 2-7, have varying, but in some cases comparatively small, amounts of specific variance. Art and music, as might be expected, have a higher correlation with each other than the general pattern for this set of variables would lead one to expect. The correlations of Art Information with the Information scores in architecture, foreign travel, and foods are also a little higher than might be expected. Perhaps this phenomenon represents common variance that might be called "cosmopolitan interests."

The general over-all similarity among the patterns of the various social-studies and humanities variables discussed in this section does not mean that an occasional high-school student cannot have a pronounced specialized interest in one of the subject-matter areas whose graph is shown. Its probable meaning, rather, is that such special interests would be manifested not by possession of more information within the ordinary high-school range, but by a more advanced or abstruse level of information, covering points that it would be most atypical for a high-school student to have learned. (It was not feasible, of course, to cover any large number of such points in a test designed for all high-school students.)

Science Information. Figure 2-8 shows the correlational pattern of two subscores of the Information Test--Physical Science Information (R-107) and Biological Science Information (R-108). Vocabulary (R-102) is shown as a reference variable. In the case of these science subjects, the departures of the correlational patterns from the general verbal ability pattern set by the Vocabulary Scale are somewhat more pronounced

Fig. 2-7

Correlation[a] of Information Scores in Social Studies and the Humanities With Scores on 32 TALENT Test Variables Based on Grade-12 Boys[c]



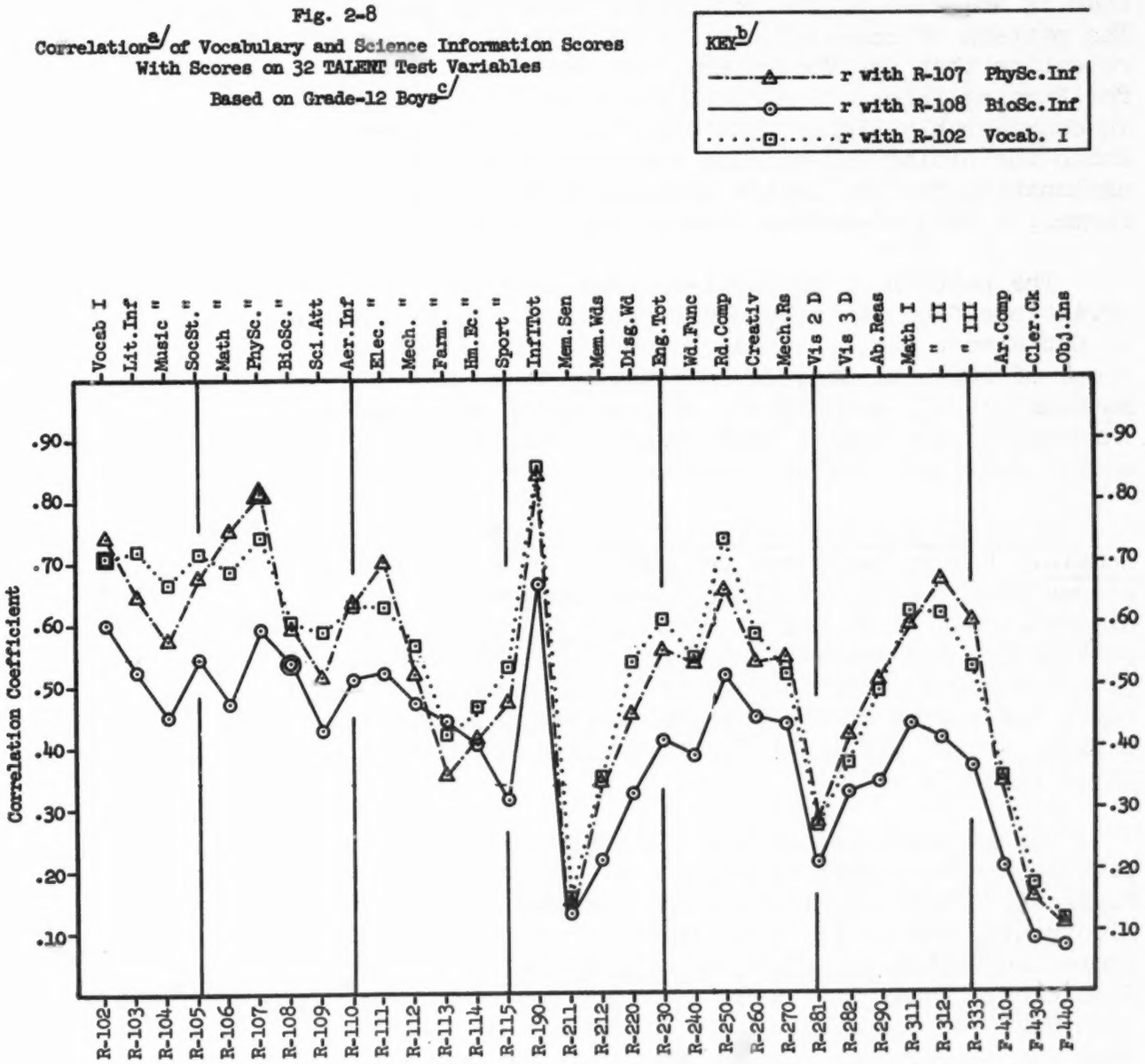
[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-8

Correlation[a] of Vocabulary and Science Information Scores With Scores on 32 TALENT Test Variables Based on Grade-12 Boys[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

than in the case of the nonscience variables plotted in Figure 2-7. The pattern of correlations for Biological Science Information generally resembles that for Vocabulary, but there are some departures, notably for Farming Information, with which the biological-science correlation is considerably higher than expected, and for Sports Information, with which the biological-science correlation is lower than expected. No explanation for the latter phenomenon is apparent; in the case of the former, a subject-matter linkage may very well be responsible.

The pattern of physical-science correlations shows quite a few deviations from the vocabulary pattern. Unlike biological science, it is not almost wholly a measure of general verbal ability. The correlations of Physical Science Information with Mathematics Information, Mathematics II, Mathematics III, and with Electrical and Electronic Information are higher than would be expected if the physical-science scores were just another measure of verbal ability.

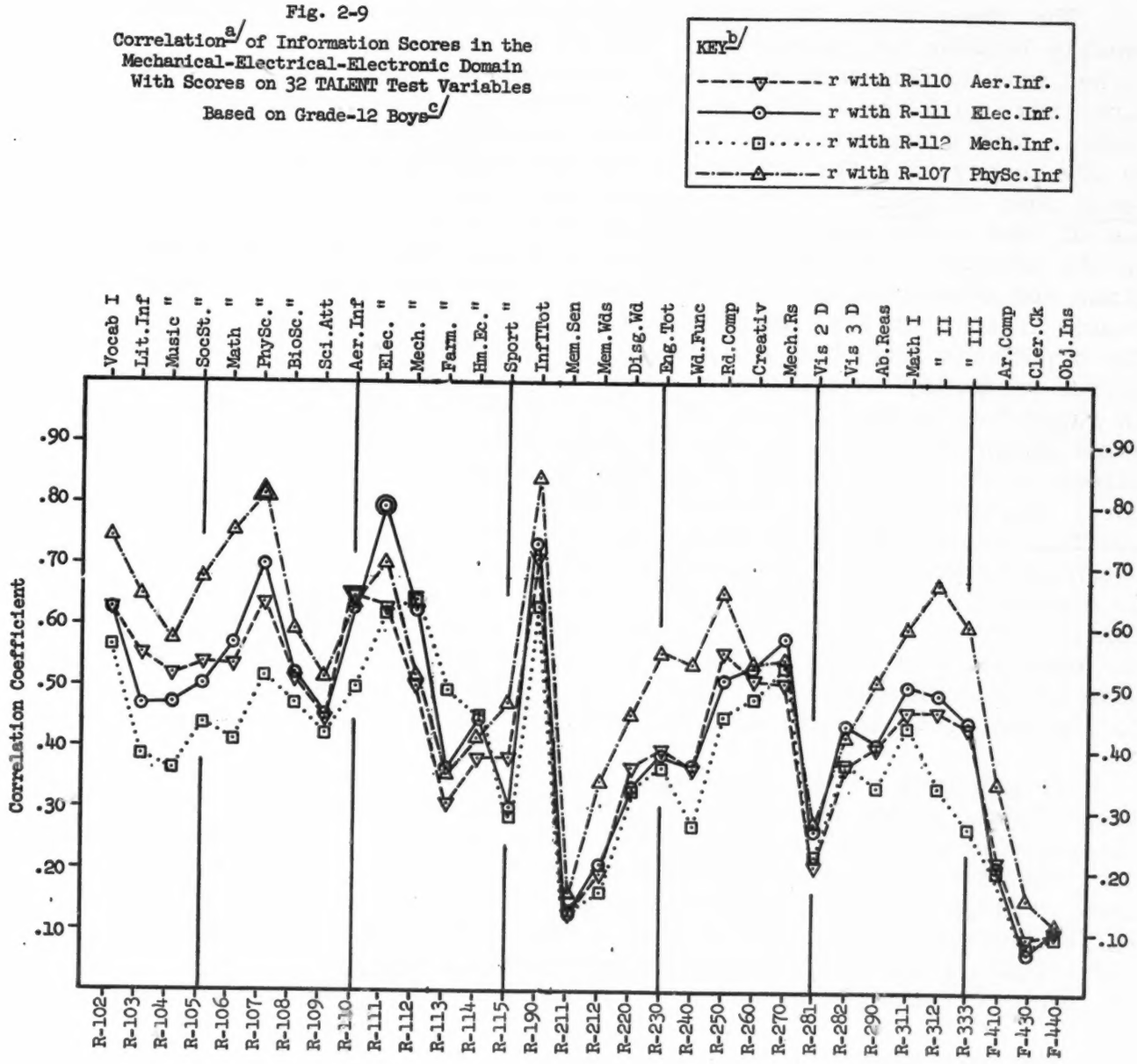
Aptitude and Information in the Mechanical-Electrical-Electronic Domain. Figure 2-9 shows the pattern of correlations for information scores in three technical areas--Mechanics (R-112), Electricity and Electronics (R-111), and Aeronautics and Space (R-110)--along with the pattern for one academic variable, Physical Science Information (R-107). (The discussion that follows is based primarily on the findings for boys, since some of these tests, notably Aeronautics and Space Information, are so difficult for most girls that their reliability for girls is quite low.)

The Aeronautics-and-Space pattern and the Electrical-Electronic pattern are very much alike, except for their specific components. Physical Science Information has somewhat the same pattern as Electrical-Electronic, but it is by no means identical. The Electrical-Electronic score has higher correlations with Mechanical Information, Mechanical Reasoning, Creativity, and Visualization in Two and Three Dimensions than would be compatible with an assumption that it functioned in the same way as Physical Science Information. Mechanical Information is rather like Electrical-Electronic Information except that the former has considerably lower correlations with mathematics, physical science, and aeronautical information, among others.

The fact that the aeronautical-information score has a closer statistical relation to the electrical-electronic information score than to the mechanical-information score may seem a little surprising in view of the fact that it appears more like mechanical information in content. One hypothesis for this slight departure from expectation is that it is a statistical artifact resulting from a rather sharp division of the mechanical scale into easy and hard items, which coincides roughly with the difference between items dealing chiefly with simple hand-tool operations and items concerned with the complexities of motors. Some attention has been devoted to the empirical relationship between these two categories of mechanical information items.

Fig. 2-9

Correlation[a] of Information Scores in the Mechanical-Electrical-Electronic Domain With Scores on 32 TALENT Test Variables Based on Grade-12 Boys[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

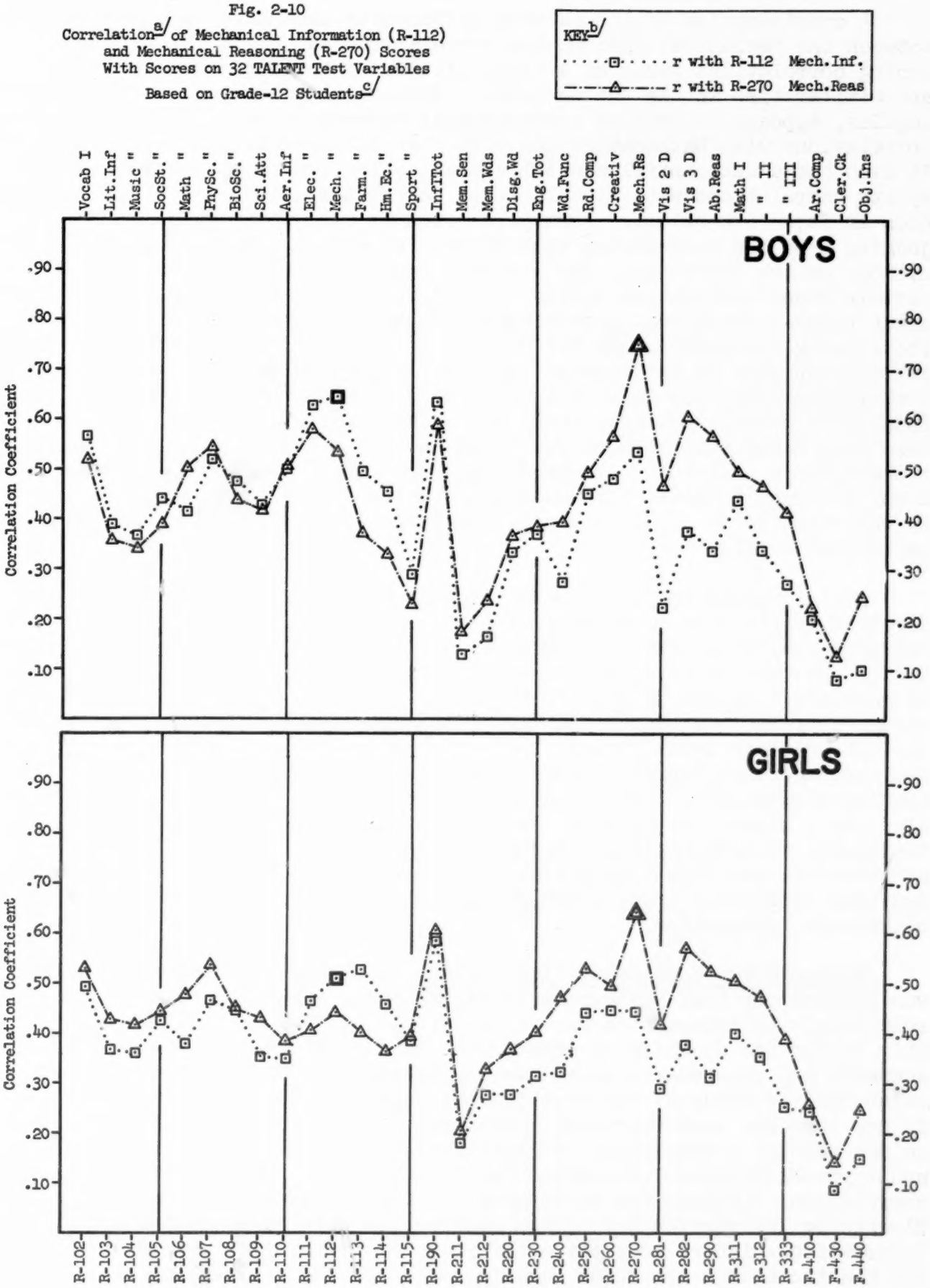
The items of the Mechanical Information Scale are divided about equally between two categories: ten of the nineteen items are concerned with tools, carpentry, and construction, while the remaining nine items call for knowledge about motors and mechanisms of various sorts. These two categories of items were combined in a single scale on the theory that the difference between them is more a matter of level than of kind. In other words, the items about the functions and use of hand tools and similar topics turn out to be considerably easier, on the average, for most high-school students than the items about engines and other mechanisms. Presumably, knowledge about the easier topics is more or less prerequisite to knowledge about the harder topics. The hypothesis that the two categories of mechanical-information items differ primarily in difficulty level rather than in factorial content is supported by data in Table 2-11. The average item difficulty indexes shown in this table make it clear that the items on motors are harder on the average than the items on tools and carpentry. Furthermore, inspection of the reliability coefficients and other correlation coefficients presented in this table suggests that the correlation between parts would be approximately unity if corrected for attenuation. As a matter of fact, the correlations between the two parts of the scale tend, in general, to be even higher (by a small margin) than the divisor used in correcting them for attenuation--namely, the geometric mean of the corresponding reliability coefficients (owing, presumably, to the fact that the reliability coefficients are underestimates).

To get back to the question of why aeronautical information is less closely related statistically to mechanical information than to electrical-electronic information, it may very well be a result of the fact that the mechanical-aeronautical correlation coefficient is pulled down somewhat by the substantial proportion of very easy hand-tool items in the Mechanical Information Scale. Another source of linkage between electrical-electronic information and aeronautical information may be the high correlation of both of them with Physical Science Information.

The next major question that arises in this area is concerned with the nature of the difference, if any, between the underlying factors in the Mechanical Information Scale (R-112) and the Mechanical Reasoning Scale (R-270). Figure 2-10, which shows the correlation patterns for these two variables in samples of girls and of boys, throws some light on this question. Mechanical Reasoning shows much higher correlations with three other aptitude measures--Visualization in Two Dimensions (R-281), Visualization in Three Dimensions (R-282), and Abstract Reasoning (R-290)--than does its information counterpart. The Mechanical Reasoning correlation is also higher with Object Inspection (F-440) and somewhat higher with the various mathematics scores and with Creativity (R-260). Mechanical Information, on the other hand, has markedly higher correlations (particularly after correction for attenuation) with Electrical and Electronic Information (R-111), Farming Information (R-113), and Home Economics Information (R-114). (The last-mentioned phenomenon, which holds for boys as well as for girls, probably has no deeper significance than that it represents an "acquisition-of-information" element.)

Fig. 2-10

Correlation[a] of Mechanical Information (R-112) and Mechanical Reasoning (R-270) Scores With Scores on 32 TALENT Test Variables Based on Grade-12 Students[c]



[a] [b] [c] See footnotes on Fig. 2-1.

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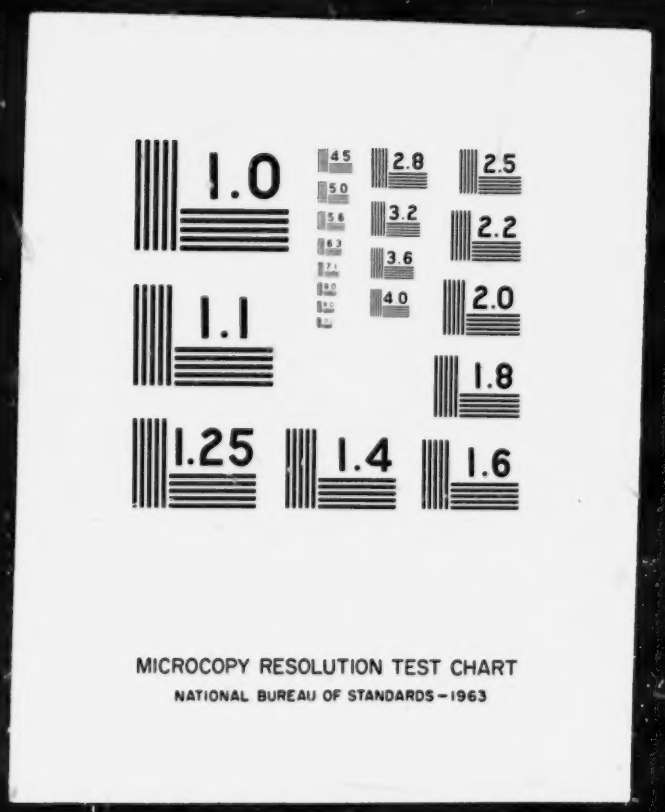


A consideration of the various differences that have been mentioned between the Mechanical Information correlations and the Mechanical Reasoning correlations gives us a clear picture of the basic differences and similarities in the two measures. Mechanical Reasoning, as its name implies, appears to involve a substantial reasoning component. Its correlations with Mathematics and with Abstract Reasoning suggest this. It also has a substantial spatial visualization component, as indicated by its correlations with Visualization in Two Dimensions and Visualization in Three Dimensions. Form perception is also apparently involved, judging from the correlation with Object Inspection. Mechanical Information, on the other hand, has its most pronounced relationships with certain other information scores in nonacademic areas. These differences between Mechanical Reasoning and Mechanical Information result in there being far greater sex differences in favor of the boys on the latter test than on the former. Most girls possess very little mechanical information, but many of them score well on Mechanical Reasoning. In a certain limited sense, then, Mechanical Reasoning is an "aptitude test" and Mechanical Information is an "achievement test." But it is probably more realistic to regard both as aptitude tests, since unless a boy has enough interest in mechanical matters to acquire information in this area he is relatively unlikely to do well in a job requiring mechanical skills.

Having raised the question of whether Mechanical Information is essentially the same as Mechanical Reasoning and having answered in the negative, we arrive at a parallel question. Is Mechanical Information the same as Physical Science Information? And again the answer is negative. As can be seen in Figure 2-9, Physical Science has much higher correlations than Mechanical Information with information in the various academic areas (R-103, 104, 105, 106, 108), with variables in the language area (English, Word Functions in Sentences, Vocabulary, Reading Comprehension, etc.) and with Mathematics. Physical Science also has a higher correlation than Mechanical Information with Abstract Reasoning. The Mechanical Information correlations, corrected for attenuation, are higher (especially for girls) with farming information and home economics; also, although less markedly, with electrical-electronic information.

Academic vs. Nonacademic Information. In the foregoing section it was pointed out that Mechanical Information had its most pronounced correlations with information scores in certain other nonacademic areas. This raises the question of whether the surface distinction between academic and nonacademic areas has any validity in terms of underlying relations. A study of the correlations suggests that the distinction is one that has some functional reality. Some idea of this may be gained through a comparison of Electrical-Electronic Information (R-111) and Physical Science Information (R-107), two tests which have a sizable correlation. (Figure 2-9 is helpful for this purpose.) Electrical-Electronic Information has a high correlation with Physical Science Information--higher, as a matter of fact, than with any other variable. And the two scales are about equally reliable (for grade-12 boys).

But physical science has markedly higher correlations than electrical-electronic information with all academic variables.

As far as the correlations of these two variables with nonacademic variables is concerned, no such clear pattern emerges. The findings are somewhat similar when other academic variables replace physical science in the comparison. It appears, then, that there is some kind of mortar holding the academic area variables together. This mortar might be termed the "academic-achievement" factor or the "doing-well-in-school" factor. No comparable mortar seems to exist for the non-academic variables. The "academic-achievement factor" can be further pinned down by pointing out that it appears to be almost identical with the "general-verbal-ability" factor discussed earlier. Physical Science Information, like all the rest of the academic-achievement measures, has a high verbal component.

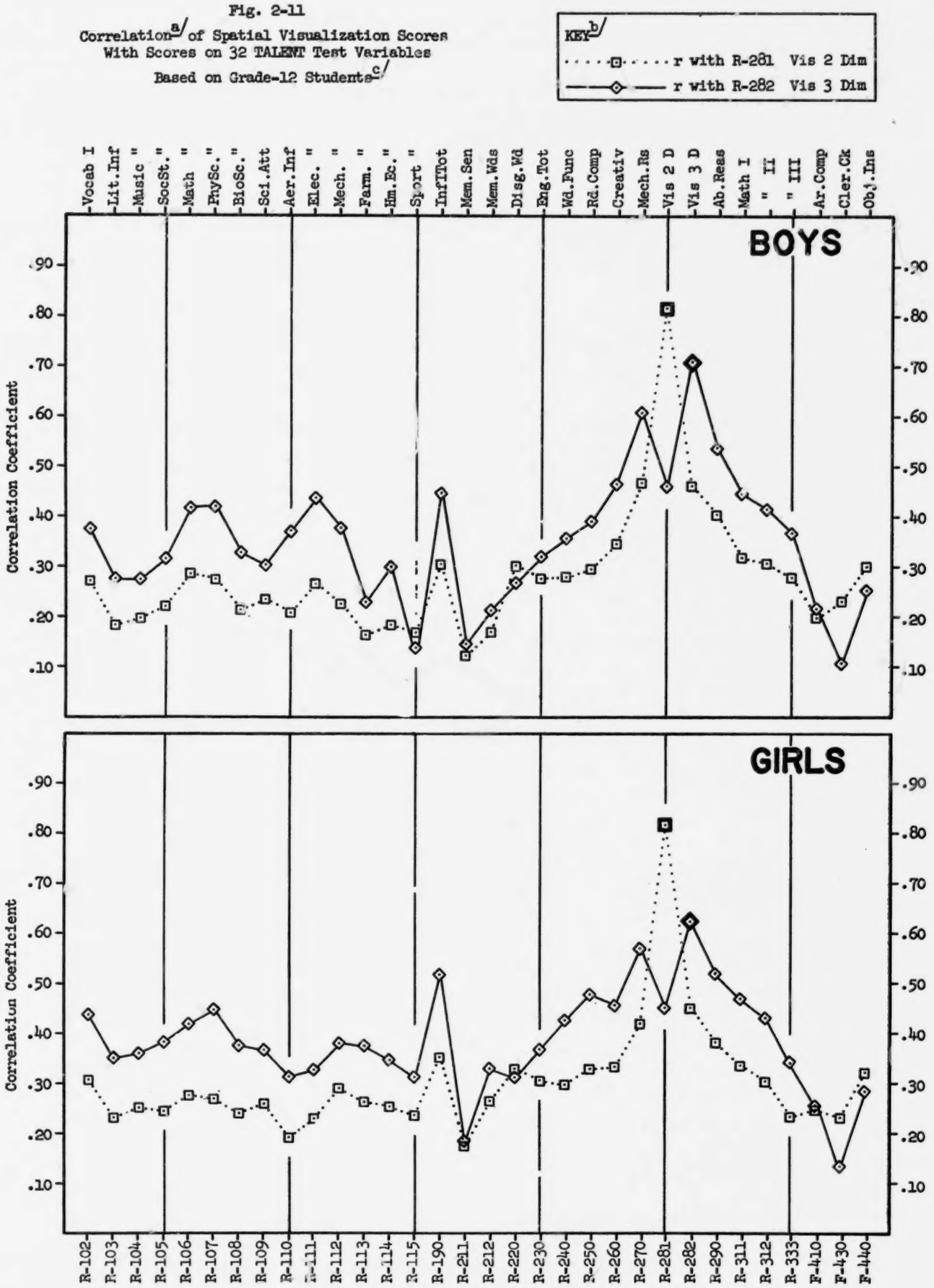
Spatial Visualization. The TALENT battery includes two tests of spatial visualization. One of them is limited to two-dimensional visualization and the other requires visualization in three dimensions. One of them (the former) was designed to have a substantial degree of speeding and the latter was not. In the three-dimension test the task and the items are considerably harder than in the two-dimension test. This is confirmed by the normative data (Table 3-2, Parts 55 and 56), which show that the average student answers a larger proportion of the two-dimension items correctly even though he does not have time to attempt as many. Nevertheless, despite all these differences, the two tests seem to resemble each other in correlational pattern except for their correlations with highly speeded tests, which are the only tests with which Visualization in Two Dimensions has higher correlations than Visualization in Three Dimensions. (See Figure 2-11.) Although both tests have sizable components of unique reliable variance, this specific component is probably larger for Visualization in Two Dimensions, judging from the fact that (with the exceptions noted above) its correlations with other variables are generally far lower than the corresponding correlations with the three-dimension test, even though the latter presumably has lower reliability coefficients.

Some Miscellaneous Important Aptitudes. The correlation patterns of three somewhat diverse aptitude measures--Creativity (R-260), Mechanical Reasoning (R-270), and Visualization in Three Dimensions (R-282)--are graphed in Figure 2-12, along with the pattern for Reading Comprehension (R-250), which is presented as a reference variable. It will be observed immediately that these tests apparently all have substantial components of unique reliable variance. Despite their diversity, however, each has something in common with the others. None of the other three parallels the reading test well although all of them have substantial correlations with it.

Of the variables in Figure 2-12, the two that are most alike are Visualization in Three Dimensions and Mechanical Reasoning. The reason seems obvious. The Mechanical Reasoning items make heavy direct demands on the student's ability to visualize various spatial configurations,

Fig. 2-11

Correlation[a] of Spatial Visualization Scores With Scores on 32 TALENT Test Variables Based on Grade-12 Students[c]

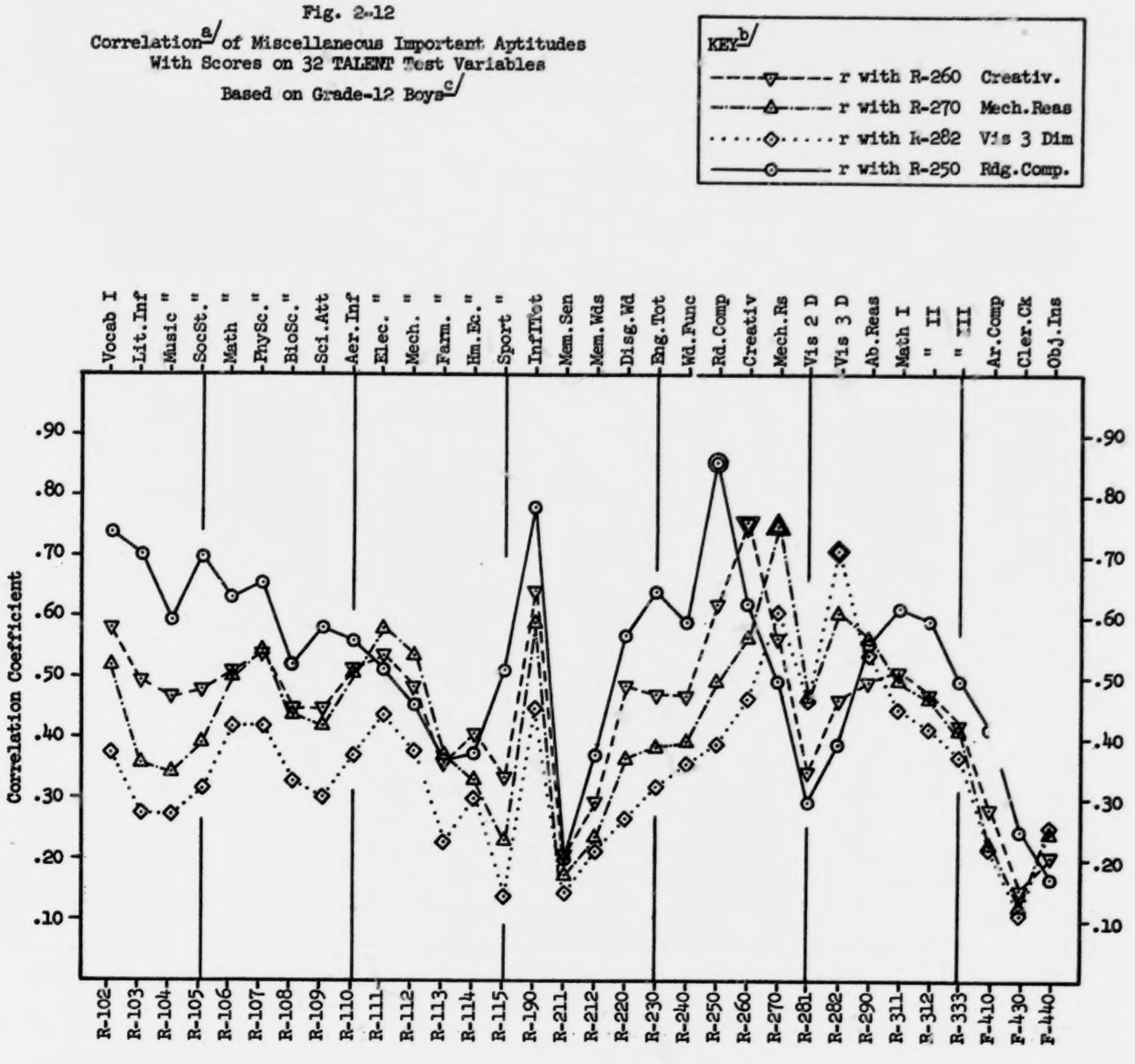


a/ b/ c/ See footnotes on Fig. 2-1.

Fig. 2-12

Correlation[a] of Miscellaneous Important Aptitudes With Scores on 32 TALENT Test Variables

Based on Grade-12 Boys[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

and motions in space. (The similarity of the Mechanical Reasoning pattern to that for visualization would extend reasonably well to Visualization in Two Dimensions, even though the graph for that test is not shown in Figure 2-12.)

The correlation pattern for the Creativity Test resembles that for Reading Comprehension in some ways (e.g., the substantial correlations with tests in academic areas and other tests that have high verbal loadings). In other ways it is more like the Mechanical Reasoning pattern, for instance in its correlation with Visualization in Three Dimensions. In still other ways it is different from either of them, owing to its sizable unique component.

Speed and Accuracy in Computational and Perceptual Tasks. Figure 2-13 shows the correlational patterns of three of the highly speeded tests--Arithmetic Computation (F-410), Clerical Checking (F-430), and Object Inspection (F-440). In examining these patterns, the peaks representing the correlation of formula score on a test with number of items attempted on the same test should be discounted. Such a correlation is somewhat spurious since the "attempts score" puts an upper limit on the formula score. If we ignore these semispurious peaks, we find that Object Inspection and Clerical Checking have almost identical correlations with most other tests, and that the few exceptions are quite in accordance with what might be expected on the basis of a logical consideration of the nature of the two tests. Thus it is not at all surprising that Clerical Checking has higher correlations with Spelling than Object Inspection does. The Clerical Checking task requires the observation of small differences in spelling. Likewise the higher correlation with Disguised Words is to be expected. Object Inspection, on the other hand, has a higher correlation than does Clerical Checking with tests requiring observation of the features of diagrams. Such tests include Visualization in Two Dimensions, Visualization in Three Dimensions, Abstract Reasoning (not shown in Figure 2-13), and Mechanical Reasoning.

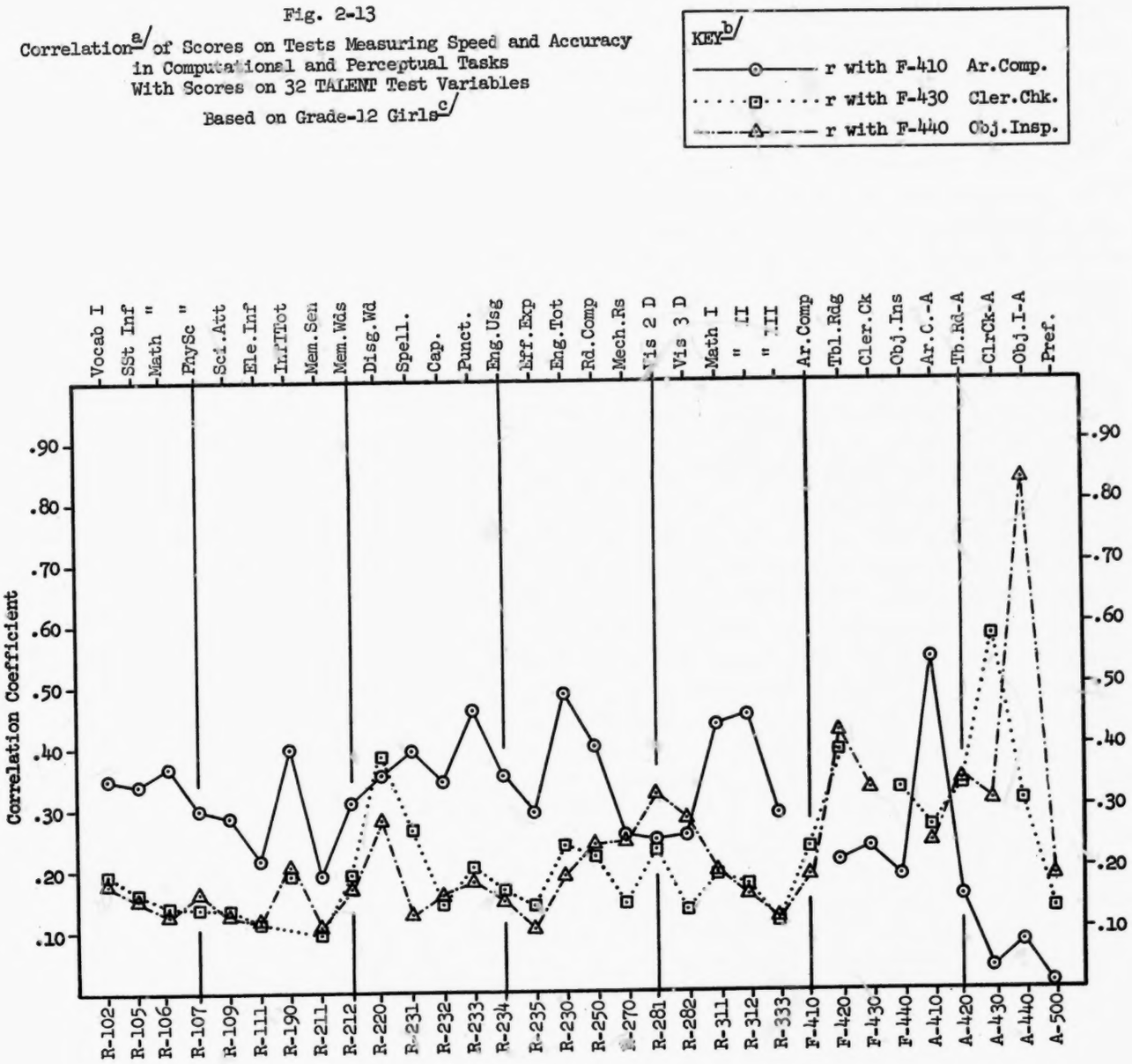
Part of the over-all similarity between the Object Inspection and Clerical Checking patterns seems clearly due to the fact that both involve tasks in the visual perception domain, and to the high degree of speed they both require. The effect of speed is apparent from the fact that apart from the correlations of these two tests with each other, their highest correlations are with the other highly speeded tests--Disguised Words (R-220) and Visualization in Two Dimensions (R-281). They also have higher correlations than most other variables with the Preferences Test (A-500), which is a pure measure of speed, scores on it being just the number of items attempted.

Arithmetic Computation has generally higher correlations with other variables than do the two other tests graphed. This is probably mainly because it is more reliable. But despite this presumed greater reliability, Arithmetic Computation has lower correlations with the rest of the highly speeded formula-scored tests than they have with each other. Arithmetic Computation thus is quite different from them, not merely in

Fig. 2-13

Correlation[a] of Scores on Tests Measuring Speed and Accuracy in Computational and Perceptual Tasks With Scores on 32 TALENT Test Variables

Based on Grade-12 Girls[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

reliability but in what it measures. Students must bring with them to this test a thoroughly mastered and quickly summonable knowledge of the various number combinations in addition, subtraction, and multiplication, and of the ways of handling multidigit numbers in the four basic arithmetic operations.

Scores on the Arithmetic Computation Test appear to be somewhat more dependent on accuracy than on speed. Evidence for this lies in the fact that this test does not have especially high correlations with other speeded tests, such as Disguised Words and Visualization in Two Dimensions. Probably the greater importance of accuracy than speed on the Arithmetic Computation Test is a result of the extremely heavy penalty for errors. (The penalty is twelve times as great as a penalty just large enough to cancel chance successes would be.)

Arithmetic Computation has some of its highest correlations with Mathematics I (R-311), Mathematics II (R-312), and Mathematics Information (R-106), although the converse is far from true. The various mathematics tests (graphed in Figure 2-14) are relatively or entirely computation-free, and thus have far higher correlations with other tests that involve reasoning or general verbal ability than with the computation test. The latter, on the other hand, having little to do with either reasoning or verbal manipulation, tends to have higher correlations with mathematics tests than with most other variables. Since these correlations of Arithmetic Computation with Mathematics I and II and Mathematics Information represent neither community of function nor a shared high degree of speededness, perhaps what they do represent is a community of attitude towards numbers and mathematics in general. Students who score well on these tests are not "number-shy" and thus are free of the symptoms subsumed under the "number-shyness syndrome"--namely, avoidance of mathematics courses whenever possible, a feeling of inability to cope with numbers or with anything related to mathematics, and a dislike of things mathematical. In summary, then, the highly speeded formula-scored tests are not interchangeable. Apparently each makes a unique contribution to the battery.

Speed of Response. The attempts scores on certain tests--Table Reading (A-420), Clerical Checking (A-430), Object Inspection (A-440)--constitute somewhat purer measures of speed of response (as opposed to speed-plus-accuracy) than the corresponding formula scores (F-420, F-430, F-440). The Preferences Score (A-500) also seems to go with the other three number-of-items-attempted variables mentioned. These four variables appear to form a cluster measuring tendency to respond quickly to test items. The intercorrelations among these four variables tend to be higher than their correlations with other experimentally independent variables. Number of items attempted on Arithmetic Computation (A-410) also belongs, to a certain extent, to the cluster of speed-of-response variables, but its correlations with the other four variables constituting the cluster tend to be lower than their intercorrelations among themselves, and its correlations with the Screening Scale (R-101) somewhat higher than theirs. This latter occurrence suggests that whatever the nature of the common element shared by A-410 (number of items

attempted on Arithmetic Computation) and R-101 (score on Screening Scale), it consists primarily in something other than mere speed of response. This "something" is probably ability in arithmetic computation (as opposed to mere speed of response without reference to correctness of the answer).

Preferences Test (A-500). The "attempts score" on the Preferences Test was designed to provide a measure of speed in a specific kind of decision-making. Apparently the A-500 score is doing what it was designed to do. Evidence to this effect lies in the fact that only highly speeded tests have significant positive correlations with it. Its highest correlation with any scale in Project TALENT's personality inventory, the Student Activities Inventory, is with the Impulsiveness Scale (R-603). This is wholly compatible with the purpose of the Preferences Test score.

Further light is thrown on the character of this score by the nature of its correlations with the cognitive tests. In most grade-and-sex groups these correlations (except for the aforementioned ones with some of the highly speeded formula-scored tests) tend to be negative, and this tendency is stronger in the higher grades, so that for grade-12 boys almost all of these correlations are significantly less than zero, and for grade-12 girls the majority of them are. What this may mean is that the more mature and brighter a student is, the less willing he is to make snap judgments of the type called for by the Preferences Test. A supplementary hypothesis is that the brighter students fully understand the implications of the pairs of characteristics they are to evaluate in the Preferences Test, and thus are impelled to think about them. The less bright students, on the other hand, may misunderstand some of the implications and thus not need to take time to consider the problem, because it poses no dilemma for them.

Screening Scale (R-101). The Screening Scale was designed to help identify those whose scores on some of the other tests might be invalidated by functional illiteracy or somewhat reduced below their true level by carelessness in marking responses. The twelve items constituting this scale are so easy that any English-speaking person who is neither mentally retarded nor illiterate should know the correct answers to every one of them. Table 3-4 shows the raw-score percentage distributions and cumulative-percentage distributions for this variable. At all high-school grade levels the test produces distributions that have an extreme negative skew, just as it was designed to do.

The distributions for this scale indicate that in grade 12 about 7 per cent of the students (9 per cent of the boys and 5 per cent of the girls) omit or answer incorrectly more than one item of the Screening Scale. Marking the wrong answer to one Screening-Scale item can probably be considered to come within the "normal" range of clerical error, but failure to answer at least 11 of the 12 items correctly can be assumed to indicate in almost every case failure to cooperate, near-illiteracy, or an extreme degree of clerical error (due probably to carelessness or conceivably in a few cases to defective vision), or else

failure to finish a test that almost everyone else has had time to finish. Which of these is the most likely explanation in any given instance of a low Screening-Scale score can be judged on the basis of inspection of the student's entire pattern of scores and responses. A thorough study of these low-scoring students is planned for the future in order to get a more exact notion of the extent to which these various factors (illiteracy, carelessness, slowness, uncooperativeness) have affected the scores of students in Project TALENT. In the meantime, however, we can be assured, in view of the relatively small percentage of low Screening-Scale scores, that the extent to which these factors are attenuating the test results is slight. Confirmatory evidence to this effect is provided by the fact that the correlations of the Screening-Scale scores with number of items attempted in Table Reading (A-420), Clerical Checking (A-430), Object Inspection (A-440), and Preferences (A-500) are all close to zero. The fact that the Screening Scale has negligible correlations with all four of these variables suggests that low scores on it are not due to inadequate time allowances on tests (such as Part I of the Information Test) that are designed to be essentially unspeeded.

Mathematics. Figure 2-14 shows the grade-12 correlation patterns for four separate mathematics variables--Mathematics Information (R-106), Arithmetic Reasoning (Mathematics I, R-311), Introductory High School Mathematics (Mathematics II, R-312), and Advanced High School Mathematics (Mathematics III, R-333). All four patterns are about the same, but the two that are most alike are Mathematics Information (R-106) and Mathematics, Part II (R-312). The correlation between them, corrected for attenuation, is nearly 1. Both measure what might be termed "mathematics knowledge." This finding that the two tests are in effect psychometrically identical would be easy to misinterpret. It certainly does not mean that memorizing definitions and factual statements will automatically endow one with genuine comprehension of concepts and the ability to figure out the solution to problems. Nothing could be farther from the truth. A more likely explanation of at least a part of the mechanism by which this equivalence is established is that, as a student's understanding of concepts increases, his mastery of the definitions, vocabulary, and facts that go along with those concepts also increases.

Another explanation, which probably also helps account for the equivalence, has its roots in the test-development phase of the project. In the course of development of the Information Test, the decision was reached that because a very broad range of coverage was sought for that test, the area of mathematics ought to have some representation in it to avoid omission of one of the important areas of human knowledge. With this in mind, some of the mathematics items that conformed best to the item format (short factual items) called for by the Information Test were extracted from the pool of mathematics items and incorporated into that test. The items thus selected were, through deliberate choice, rather heterogeneous in range, some of them covering facts that might be learned in elementary school (e.g., Roman numerals) and others

requiring knowledge about concepts that probably would not be encountered until the later years of high school, or perhaps not even until college. Mathematics, Part II, is likewise not limited to a very narrow range. Mathematics, Part I, is strictly limited to problems requiring "arithmetic reasoning" for solution, and Mathematics, Part III, to topics of college-preparatory mathematics not normally covered until grade 10 or later. Mathematics, Part II, consists of items not appropriate for either Part I or Part III. It includes some topics taught in elementary school (decimals, fractions, etc.) and it also includes the mathematics traditionally taught in grade 9 in an academic curriculum (largely elementary algebra). This brief historical background should make it clear that, in some cases, whether a particular item was included in the Information Test or the Mathematics Test was more a matter of happenstance than of necessity. At the time the tests were developed, it was felt (as it still is) that the Mathematics Information items could on occasion be combined advantageously with the items of the Mathematics Test to obtain a somewhat more reliable total mathematics score. (It is recognized that such combination would be undesirable in cases where the total mathematics score was to be considered in relation to the total information score, since it would involve inclusion of some of the same items in both totals.)

The question about how appropriate the tests are for the full range of high-school grades is perhaps more relevant to Mathematics, Part III, (R-333) than to any other test or subtest in the Project TALENT Battery. The relevance of the question lies in the fact that Mathematics III was deliberately designed to include only topics that are normally covered in grade 10 and beyond. Thus it was fully expected that most ninth-graders would not be able to cope at all with the Mathematics III items, and that therefore this score would have very low reliability for grade-9 students. The results confirmed these expectations.

Nevertheless, the score on this test is quite useful and informative in the case of some grade-9 students. In the first place, quite a few schools are now using experimental curricula in which some of the usual tenth-grade topics are covered in grade 9. Secondly some students who are unusually good in mathematics may be able to answer questions about points on which they never received formal instruction. One or both of these factors must account for the fact that about 1 1/2 per cent of the grade-9 boys answered at least half of the Part III items correctly. This cannot reasonably be explained as the result of chance.[1] Thus there is reason to believe that even in grade 9, scores on Part III of the Mathematics Test are useful for the occasional top-notch student. It also seems probable that for a relatively select

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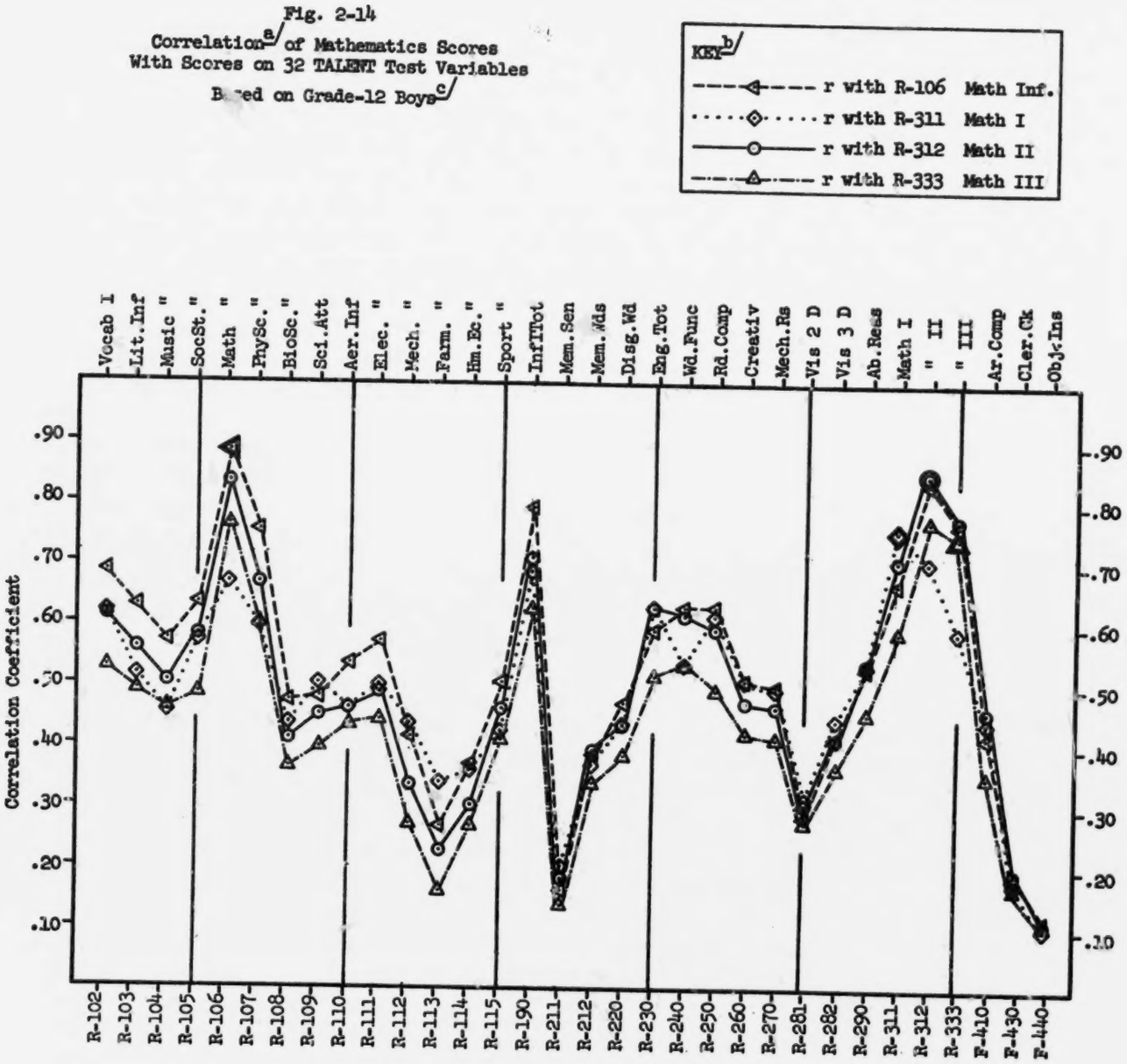
[1] The distribution is significantly different from a binomial distribution of scores on a 14-item test in which the probability of answering correctly by chance is .20 for each item. (The value of chi-square for goodness of fit is over 800, with 9 degrees of freedom. The empirical results are thus significantly different at the .001 level from the theoretical chance distribution.)

Fig. 2-14

Correlation[a] of Mathematics Scores With Scores on 32 TALENT Test Variables Based on Grade-12 Boys[c]

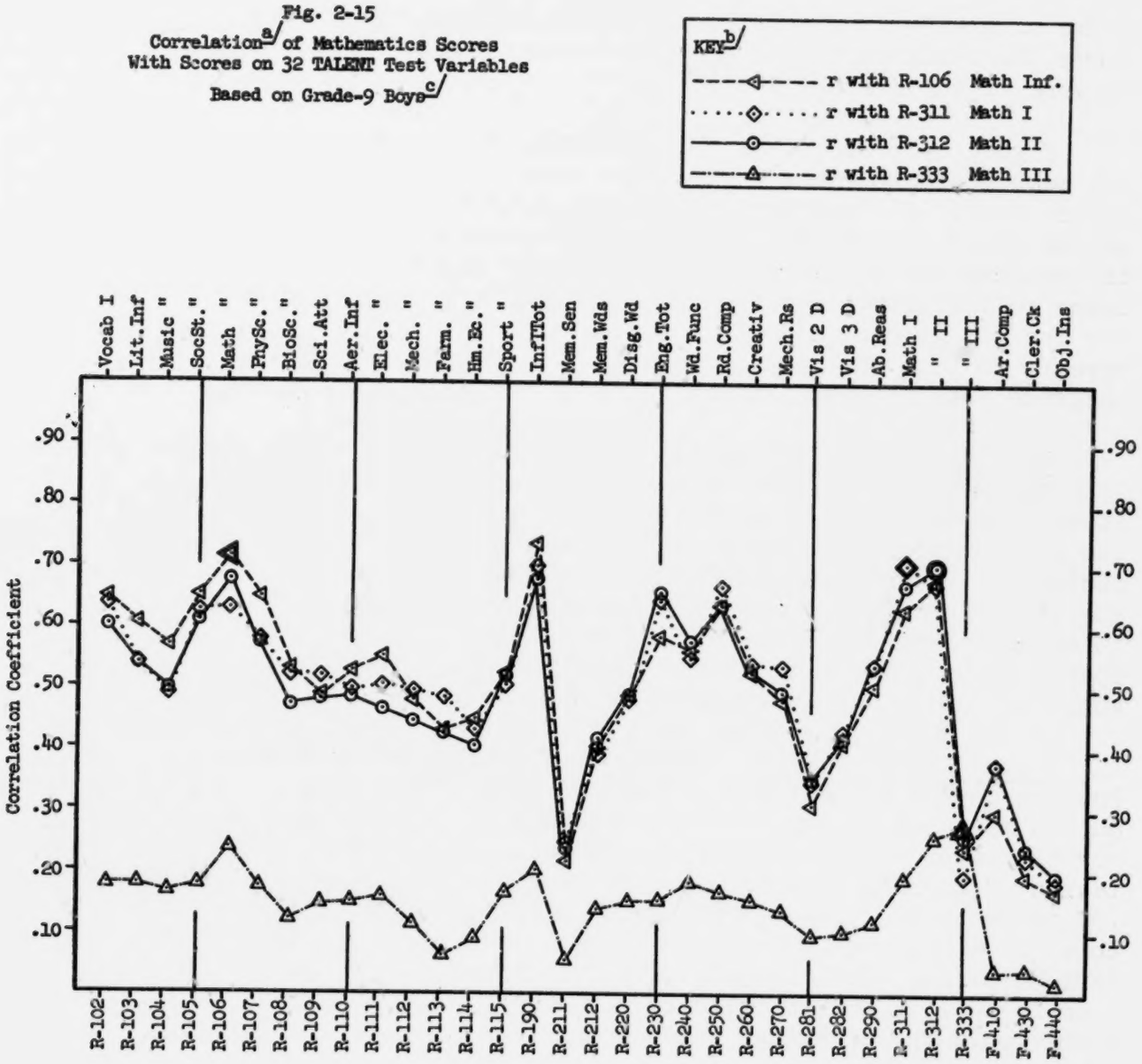


[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-15
Correlation[a] of Mathematics Scores
With Scores on 32 TALENT Test Variables
Based on Grade-9 Boys[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

group of grade-9 students these scores would be reasonably reliable since the reliability would not be attenuated by the virtually random answers of the average student.

Figure 2-15 shows the correlational pattern for grade-9 boys for the same four mathematics variables that are shown for grade 12 in Figure 2-14. A comparison of the two charts shows that for grade 9, unlike grade 12, the Mathematics III correlations are far lower than the Mathematics II correlations. This is largely a result of their lower reliability. But their general pattern is essentially the same for the two grades. In other words, what Mathematics III measures appears to bear the same resemblance to what Mathematics II measures in grade 9 as in grade 12.

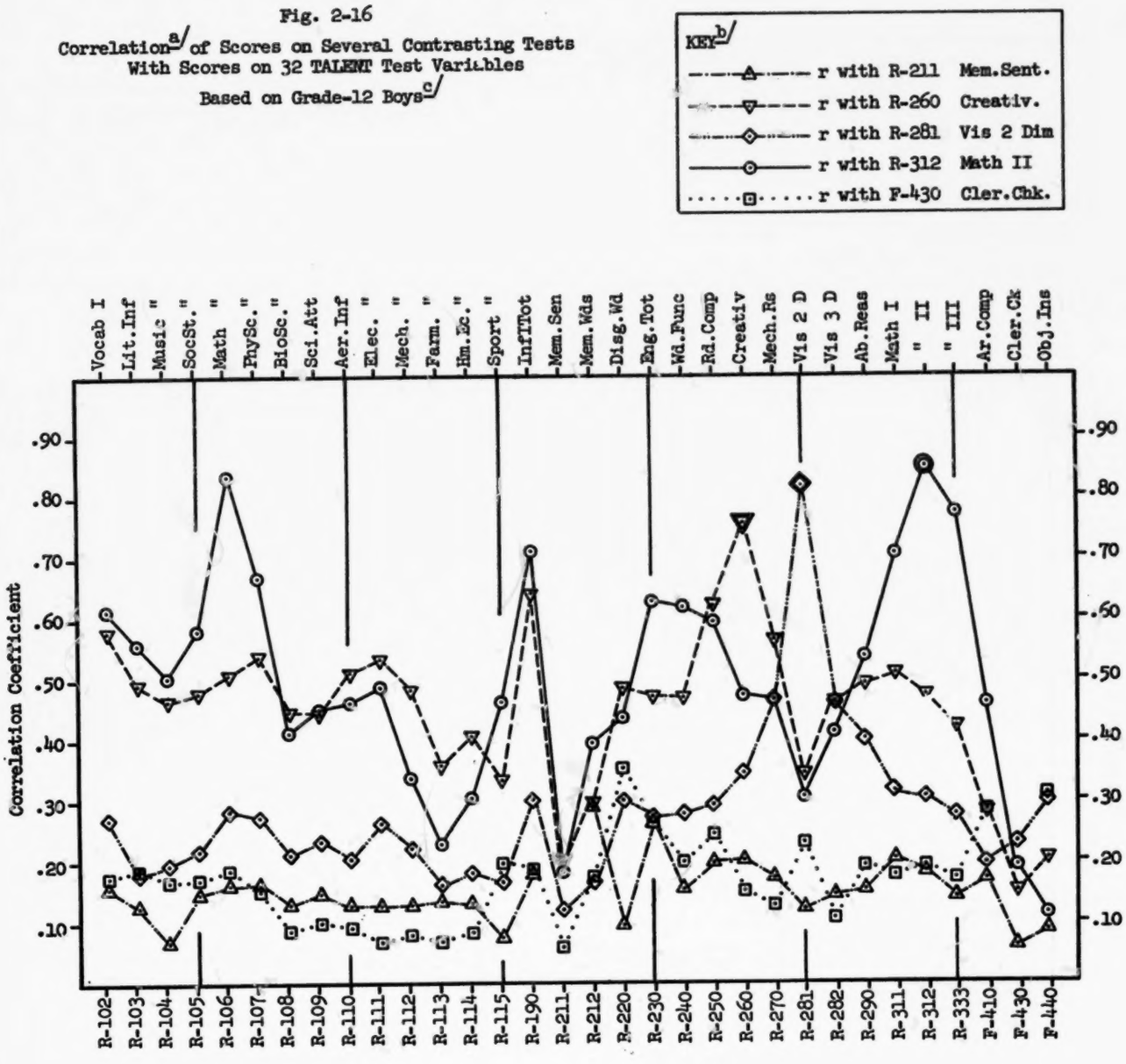
Home Economics Information. The Home Economics Information items, like the Mechanical Information items, may be classified into two groups: items concerned with cooking, and a miscellany of all other items. The two sub-categories appear to differ more in difficulty level than in factorial content. Evidence to this effect is presented in Table 2-11. The items on cooking tend to be harder than the others. Furthermore, it appears from the reliability coefficients and other correlation coefficients presented in this table that the correlation between parts would be approximately unity if corrected for attenuation.

Farming Information. Farming Information (R-113) has a substantial loading on the general factor that permeates most of the kinds of information measured in our Information Test. This loading on the general verbal factor is greatest in the lower grades; for instance, the correlation of Farming Information with general vocabulary (R-102) is about .90 in grade 9 after correction for attenuation. But quite apart from this, it appears to have some reliable nongeneral variance of an identifiable kind. Its highest correlations, corrected for attenuation, tend to be with Mechanical Information and with Biological Science Information. This finding, which holds both for boys and for girls in grade 12, and which also tends to stand up quite well in several of the lower grades, particularly in the case of boys, is not entirely unexpected in view of the fact that boys and girls in rural areas are likely to handle automobiles at an earlier age, on the average, than boys and girls from very large cities and may also be likely to acquire a little more information about plants, animals, and biology in general than city children do. This finding is interesting not only for the light it throws on high-school students' information about farming but also for the light it throws on their information about biological sciences. If it were not for the correlation between Farming Information and Biological Science Information, it would be easy to jump to the erroneous conclusion that the latter scale measures nothing but general information.

Contrasting Patterns. In Figures 2-1 through 2-15 we can see graphic demonstration that the tests fall into certain groupings within which the over-all correlational patterns are more or less similar, with the individual tests in the group departing at a few points and sometimes

Fig. 2-16

Correlation[a] of Scores on Several Contrasting Tests With Scores on 32 TALENT Test Variables Based on Grade-12 Boys[c]



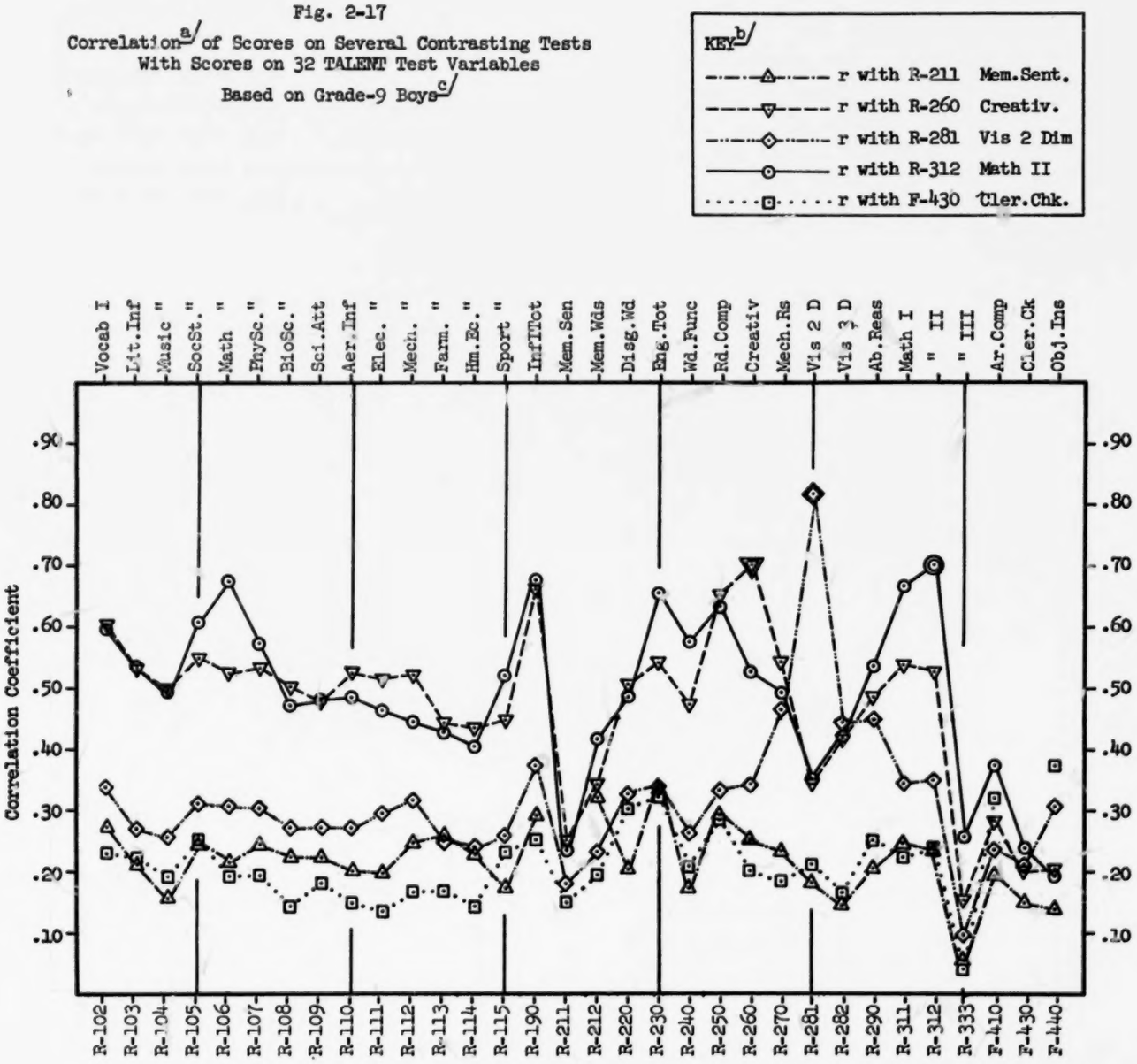
[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-17

Correlation[a] of Scores on Several Contrasting Tests With Scores on 32 TALENT Test Variables Based on Grade-9 Boys[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

to just a relatively minor degree, from the over-all pattern. Through the inclusion of the same test in more than one group we have also seen that certain linkages exist among the groups. It is reasonable to ask whether the tendency of the tests within a group to exhibit similar correlational patterns extends beyond the group boundaries. That is, do all tests in all groups tend to have the same general pattern ascribable to a single overwhelming general factor? The answer to the question appears to be, "No." Figure 2-16 shows the patterns (for grade-12 boys) of five tests of contrasting types. Among the patterns of these five tests there seems to be little, if any, general similarity. The over-all appearance can best be described as patternless. This is graphic evidence that the TALENT battery is effective in measuring a large number of different aptitudes and abilities rather than only one general ability.

Figure 2-17 presents corresponding graphs for grade-9 boys. Like Figure 2-16, it provides evidence that quite different aptitudes are being measured. However, the graphs of the five individual tests are just a little less jagged for grade 9 than for grade 12, with less pronounced peaks and valleys. This suggests that any general factor that is operating, at however low a level, has slightly more weight in grade 9 and thus to a very slight degree is masking the differences.

Some Miscellaneous Interests. Inspection of the correlations in Table 2-13 reveals the existence of some specific interests or special competence among certain high-school students. These interests reveal themselves in the tendency to get far higher scores on certain subscales of Part II of the Information Test than would be predicted for the amount of general information the student possesses (represented by his total score on the Information Test). Scores indicating special interests in this way can occur on almost all of the scales in Part II of the Information Test. Since this matter is discussed in some detail elsewhere in this report, it will suffice at this point to mention a few examples. Hunting (R-145) and Fishing (R-146) together constitute an area of special interest in which possession of information is less related to level of general information than almost any other area covered by the Information Test. There are some differences between the correlational patterns of Hunting (R-145) and Fishing (R-146), but far more striking is their similarity in contrast to the differences between their patterns and those of other scales. Bible Information (R-142) is another variable with a correlation pattern different from the patterns for other variables.

Comparison of Correlational Patterns for Different Groups of Students

The correlational patterns of various tests and groups of tests were discussed in the previous section, mostly in terms of grade-12 boys or girls, or both. To what degree are these patterns generalizable to other groups? We shall explore that question briefly, with particular reference to the degree of similarity between corresponding patterns for boys and girls and between corresponding patterns in different grade groups.

Comparison of Patterns for Boys and Girls. Figures 2-2, 4, 5, 6, 10, 11, and 22 show corresponding patterns for boys and girls in grade 12 (and also in grade 9 for Figure 2-22). Inspection of these graphs reveals a high degree of similarity between the patterns for boys and girls. The chief source of discrepancies between the two seems to lie in marked differences in the reliability for boys and for girls in a variable correlated with the variable being graphed. As was pointed out earlier, boys' scores are typically more reliable than girls' scores in Electrical and Electronic Information (R-111), Aeronautics and Space Information (R-110), and Sports Information (R-115). Girls have more reliable scores than boys on Home Economics Information (R-114). Correlations with all these variables tend to be lower for the group with which the reliability is lower. Sizable discrepancies between correlations for boys and for girls which are not explainable in terms of differences in reliability are rare. Thus the factorial composition of the tests is apparently very much the same for boys as for girls. This is an important finding. It suggests that variables that prove to be valid predictors of the success of boys in some activity (for instance job performance, job training, or higher education) are likely to be about equally effective in predicting the success of girls provided that the variables are of proper levels of difficulty for boys and for girls and that the performance of boys and of girls in the activity is dependent on the same combination of aptitudes.

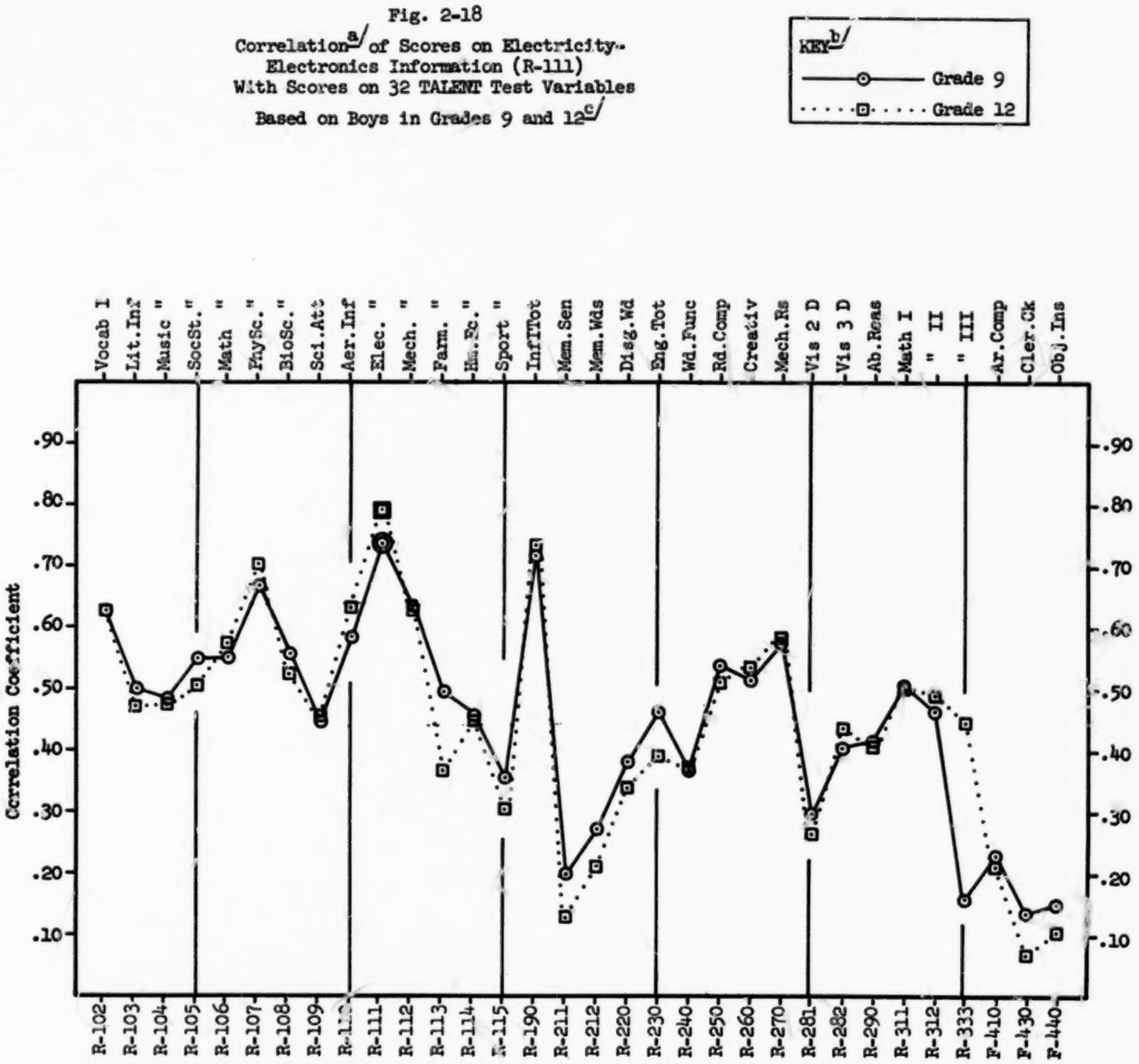
Comparison of Patterns for Different Grades. Figures 2-14 through 2-22 show corresponding correlational patterns for grades 9 and 12. (Figures 2-14 and 2-16 present grade-12 data only, Figures 2-15 and 2-17 present the corresponding grade-9 graphs, and each of the remaining five figures shows a grade-9 graph of a single variable superimposed on the corresponding grade-12 graph.) Only a relatively small portion of the differences between the correlational patterns of tests administered in different grades derives from differences in reliability coefficients. Mathematics III constitutes an instance where it appears to have accounted for a large part of the difference (see Figures 2-14 and 2-15), but this happened only because the differences in reliability coefficients were so great. One other instance where there is a very sizable difference in the grade-9 and grade-12 reliability coefficients is the Farming Information Scale (R-113). For this scale, the grade-9 scores were more reliable than the grade-12 scores. Just as virtually all TALENT variables have higher correlations with Mathematics III in grade 12 than in grade 9, so do almost all the variables have higher correlations in grade 9 than in grade 12 for Farming Information. (Figures 2-16 through 2-22 confirm this for the variables graphed.)

Inspection of Figures 2-14 through 2-22 suggests another mechanism at work to alter correlation patterns from grade to grade. This mechanism, which is apparently sufficiently potent to have a much greater effect than reliability differences, is operating to make the level of a test's correlations with a set of other tests more variable and less nearly uniform in grade 12 than in grade 9. The correlations that are relatively high in grade 9 tend to be higher in grade 12, and those

Fig. 2-18

Correlation[a] of Scores on Electricity-Electronics Information (R-111) With Scores on 32 TALENT Test Variables

Based on Boys in Grades 9 and 12[c]



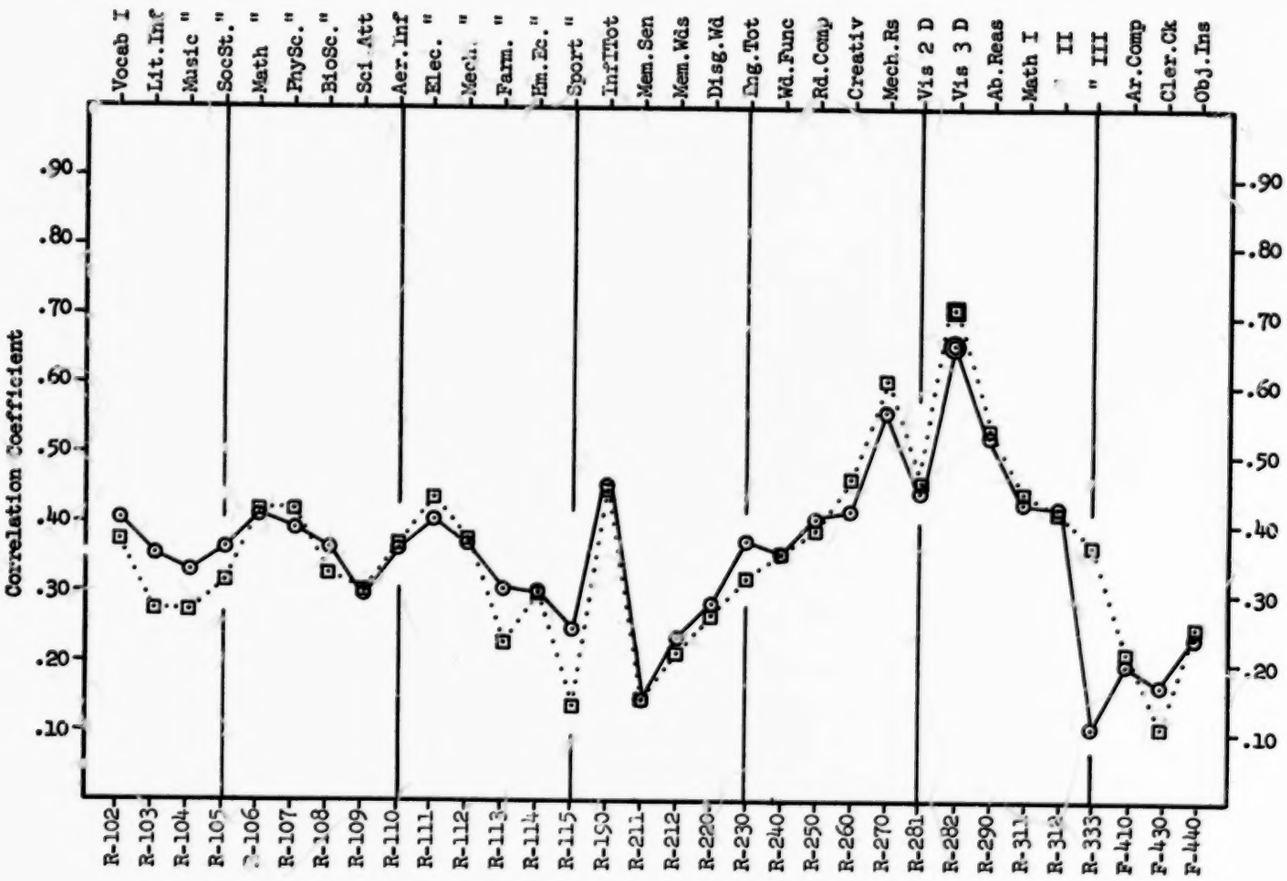
[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-19

Correlation[a] of Scores on Visualization in Three Dimensions (R-282) With Scores on 32 TALENT Test Variables Based on Boys in Grades 9 and 12[c]



[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-20

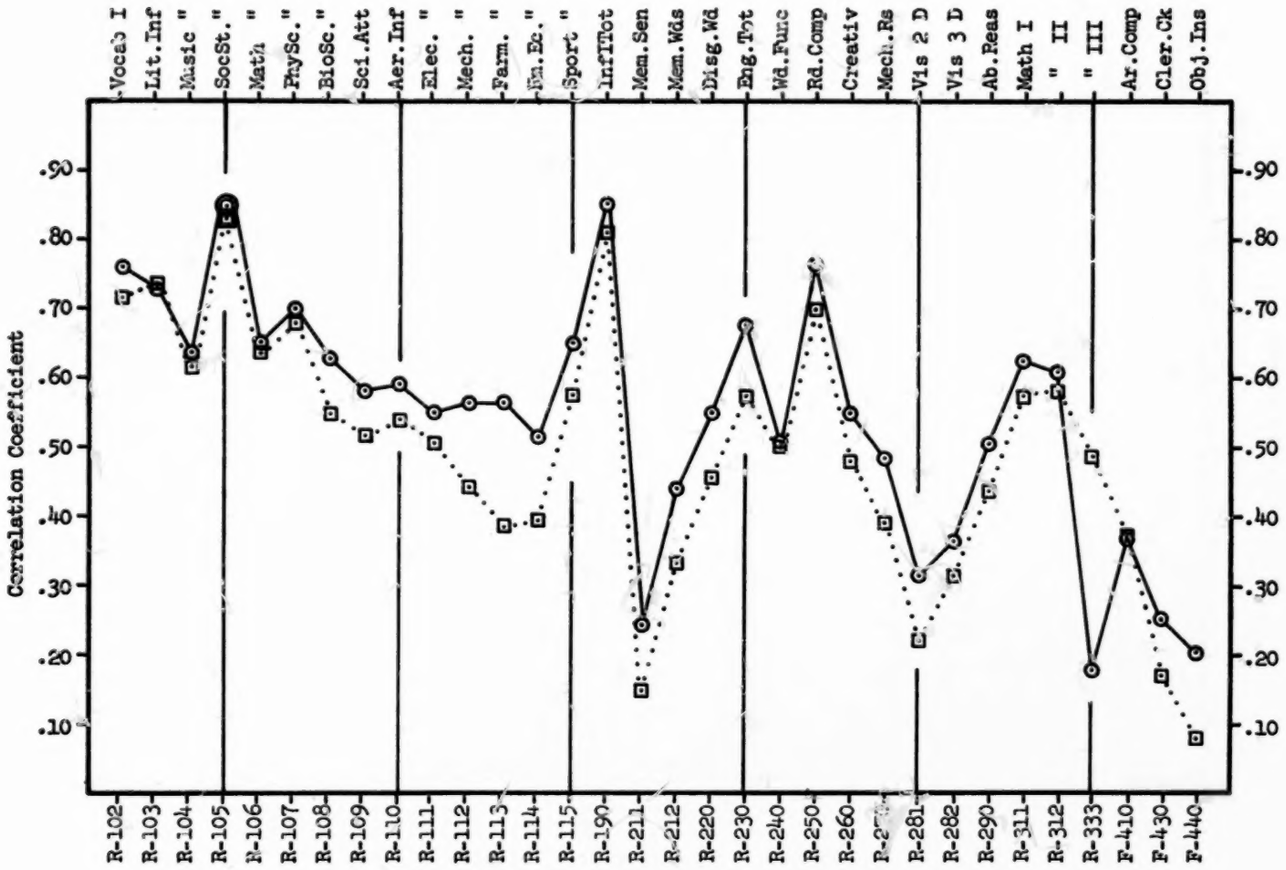
Correlation[a] of Scores on Social Studies Information (R-105) With Scores on 32 TALENT Test Variables

Based on Boys in Grades 9 and 12[c]

KEY[b]

—⊙— Grade 9

·····⊡····· Grade 12



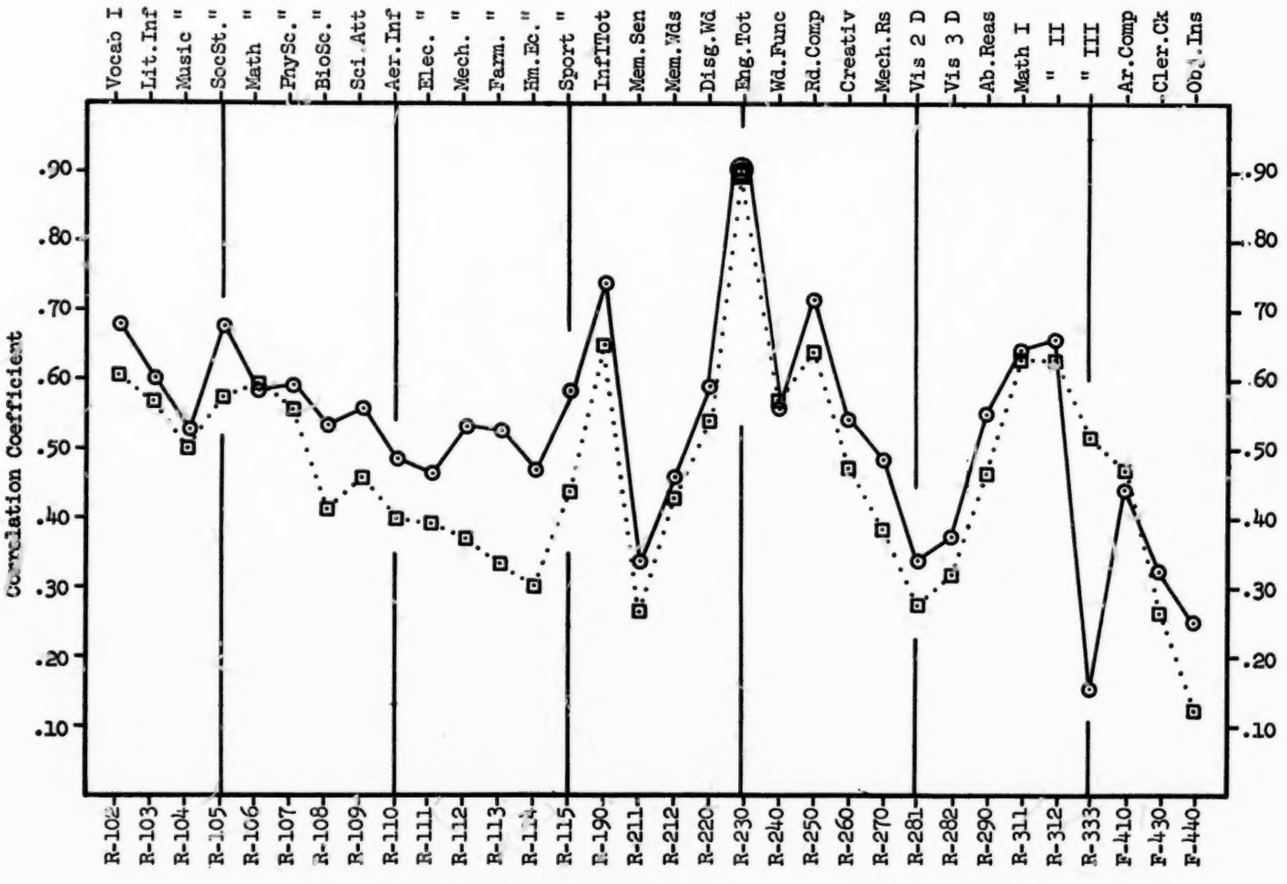
[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-21

Correlation[a] of English Total Scores (R-430)
With Scores on 32 TALENT Test Variables
Based on Boys in Grades 9 and 12[c]



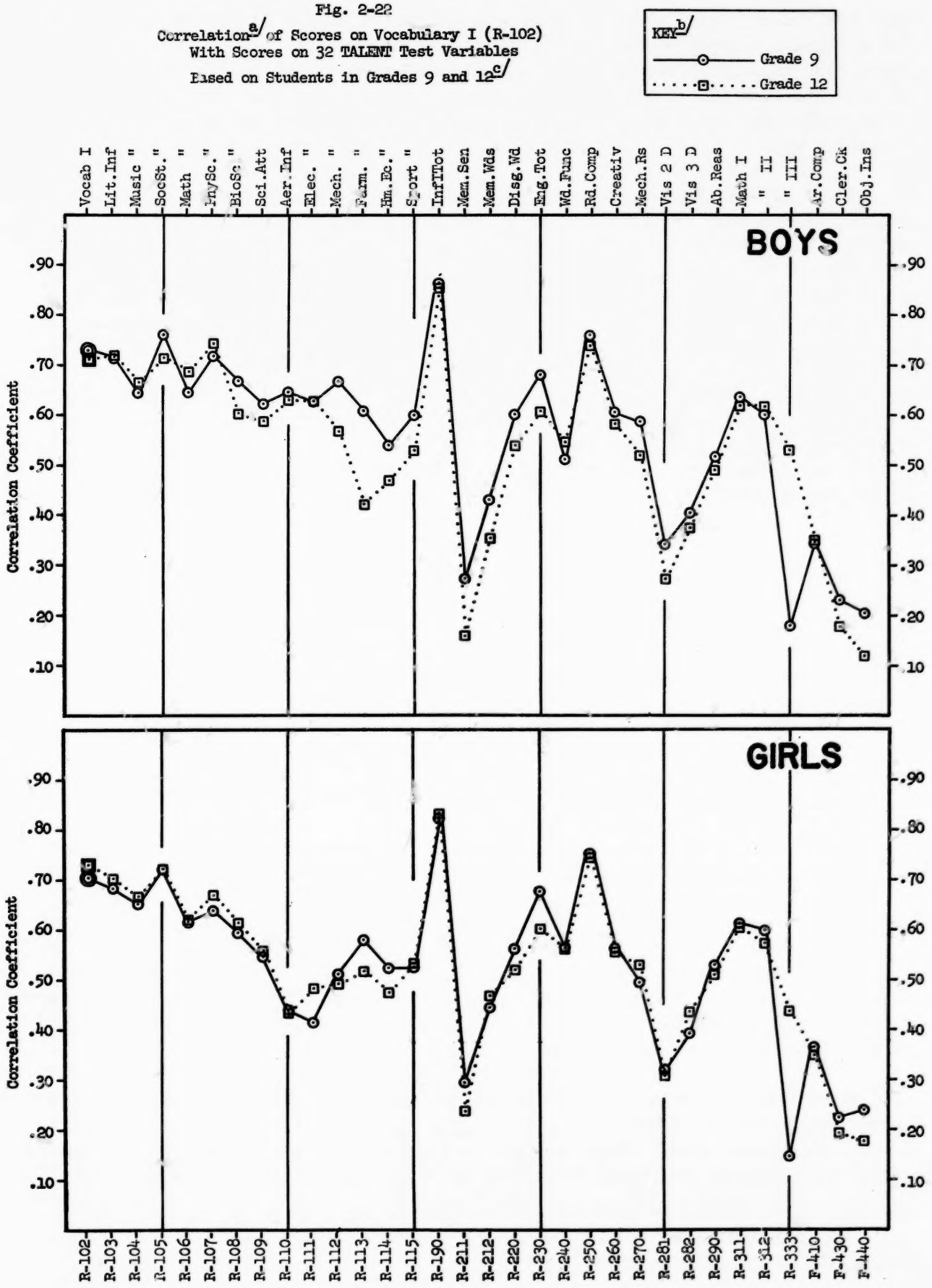
[a] The correlations are taken from Table 2-7, or when appropriate, from Table 2-10. (Where correlations of part scores with corresponding total scores are plotted, the r' values in Table 2-10 are used rather than the raw correlations of Table 2-7.)

[b] A double symbol (i.e., two concentric circles, triangles, or squares) represents a reliability coefficient. These coefficients are taken from Table 2-9.

[c] Subsample 0.

Fig. 2-22

Correlation[a] of Scores on Vocabulary I (R-102)
With Scores on 32 TALENT Test Variables
Based on Students in Grades 9 and 12[c]



a/ b/ c/ See footnotes on Fig. 2-1.

that are relatively low in grade 9 tend to be lower in grade 12. Thus, the grade-12 graphs show more jagged configurations, with more pronounced peaks and valleys than their grade-9 counterparts. But in other respects the general configurations are very similar for the two grades (except for deviations that are explainable in terms of differences in reliability).

This effect is easiest to see in the left-hand portion of the graphs, where the Information Test subscores are shown. Ignoring Mathematics III because of its atypicality, we see from Figures 2-14 and 2-15 that the correlations of Mathematics Information (R-106), Arithmetic Reasoning (R-311), and Mathematics Part II (R-312) with the various subscores of Part I of the Information Test range from about .23 to .84 (a spread of .61), while the corresponding range for grade 9 is from .41 to .68 (a spread of only .27). Correcting the correlations for attenuation reveals that differences in reliability cannot possibly account for the tremendous difference in range of correlations. It is also noteworthy that despite the large difference in range there is little difference in central value. The median of the 41 correlation coefficients under discussion is .522 for grade 9 and very slightly less, .504, for grade 12.[1]

Inspection of the correlational matrices and Figures 2-14 through 2-22 reveals further that the mathematics tests are not the only ones to which this phenomenon applies. It occurs in varying degrees in the case of many other variables, but seems most pronounced in the case of subject-matter areas in which formal instruction is received in high school--e.g., mathematics and English. The correlation between English Total (R-230) and Mechanical Information (R-112) is much lower for grade-12 boys than for grade-9 boys.

One hypothesis that seems to fit all these findings rather well is that as boys and girls pass through adolescence the importance of the "general-ability factor" in determining success in various activities is lessened, as more specialized factors (the so-called "group factors" of factor-analytic terminology) become more important. Thus, the underlying factorial structure of what a test measures alters a little from grade to grade during the high-school years as the students' specialized abilities grow and as the general-ability factor loses some of its preeminence. This is not a new theory; it has been proposed by several previous researchers. It is interesting to note how well the Project TALENT data seem to support it.

Acceleration of the development of special talents in adolescence is probably due at least partly to differential interests and differential opportunities. High school, with its elective courses, is the first opportunity for most students to have any choice of subjects to

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[1] Correlations with the Screening Scale (R-101) are not included in the data being discussed.

study. Furthermore, their hobbies, extra-curricular activities, and other spare-time activities become more influential.

Insofar as this hypothesis is correct, it has important implications for education and guidance since it implies that the high-school years are the period during which a student's pattern of special abilities first begins to take definite shape. To what extent this shape can be influenced by guidance is an important question, but it is one that is not within the scope of this chapter.

The Tests as Predictors of College Entry

The last variable of the 57 in Table 2-12 is whether the student had entered college within the first year after graduation from high school. The test variables directly related to high-school subjects and the other variables with very high components of general verbal ability are the ones that have the highest correlation with college entry. Included in these categories are such variables as mathematics, science, social studies, literature, and English (all curriculum-linked subjects) and reading and vocabulary (both of which fall in the category of subjects not taught formally in high school). Not only are these variables the best predictors of college entry for individual students (r_{AB}) but the same thing shows up in the case of the correlations of school means ($r_{\bar{A}\bar{B}}$). Among the variables named, the correlations with college entry range from .39 to .52 for individual students and from .53 to .65 for school means. There is tremendous variation among schools in their means on these school-related tests, and school means have high correlation with the percentage of seniors that go on to college. Most of the variables, whether school-related or not, have a positive correlation with college entry. The chief exception is Hunting Information (R-145); its correlation with college entry is about zero among individual students and definitely negative (-.17) for school means. Fishing Information, too, has a near-zero correlation with college entry for individuals and its correlation in the case of school means is even nearer zero. The very low or negative correlations of these two information variables, both in the case of students and schools, and the fact that the school correlations are even lower than the student correlations probably reflect the fact that boys in rural areas are likely to know more about hunting and fishing than city boys do.

As shown in Table 2-14, 51 test variables in combination have a multiple correlation of .57 with college entry on the basis of the intercorrelations shown in Table 2-12 among the scores of 17,949 individual students. (This multiple correlation would undoubtedly be higher if the group were homogeneous in geographical region, since there are large regional differences in percentage of graduates at the same aptitude level who enter college.)

It is perhaps noteworthy that the outstanding variable in terms of relationship to college entry is one of the mathematics variables, Mathematics Information (R-106). It is the only variable in Table 2-12 that has a correlation over .5 with college entry, and in the composite that gives the multiple R of .57 it has by far the largest beta weight (.25). The next largest beta (.10) is for Mathematics Part II. All of the regression weights are shown in Table 2-15. Mathematical knowledge and ability apparently play a major role in determining whether a boy will go to college.

Summary

Topics Discussed in This Chapter

The beginning of this chapter is concerned with the adequacy of the samples on which the data analyses are based and the suitability of the tests in the TALENT battery. The sample is evaluated in terms of sample size and representativeness, and the battery is discussed in terms of content, degree of speededness, reliability coefficients, and the scoring procedures used. It is concluded that both the samples used and the test battery are fully adequate for the purposes for which they were intended.

The major part of this chapter is concerned with the nature of the abilities measured by the tests.

Reliability of the Tests

For most of the tests only lower-bound estimates are available. From these estimates it can be inferred that virtually all of the tests have satisfactory reliability for differentiating among large groups and thus revealing general tendencies and trends. (This is the primary purpose of a battery designed for use in a study like Project TALENT.) Even for evaluating individuals (certainly not a basic purpose of Project TALENT) many of the tests appear to have enough reliability to be useful, and some (mostly the longer ones) have excellent reliability by any standards. It must be borne in mind, of course, that the true reliability coefficients are probably substantially higher for most of the tests than the available estimates.

Use of Screening Scale

A major reason for including the Screening Scale in the battery was to have a way of checking the extent to which factors that might impair the reliability and potential validity of the scores on an across-the-board basis (in contrast with factors affecting individual tests) were operating. These factors include uncooperativeness, inability to cope with the clerical task of marking answer sheets, etc. The Screening Scale consists of items so easy that presumably anyone who can read English can answer all of them correctly. Low scores on this scale are assumed to indicate failure to cooperate, near-illiteracy,

an extreme lack of clerical ability, or else failure to finish or nearly finish a test that almost everyone else has had time to complete. The relatively small percentage of low Screening-Test scores suggests that these factors are not attenuating the Project TALENT test results to any important degree.

Degree to Which Each Test Makes a Unique Contribution to the Battery

Some General Considerations. While the distinction between aptitude tests and achievement tests is admittedly not a sharp one, it is far more important, from a theoretical point of view, that tests designed primarily as aptitude measures make some unique contribution to the battery than that tests whose primary purpose is to evaluate achievement have statistically unique components. Therefore, in considering whether the constituent parts of the TALENT battery have adequate unique components, the aptitude tests and achievement tests are considered separately. The conclusions, summarized below, are based on formal uniqueness analyses, supplemented by informal comparison of the test intercorrelations with the reliability coefficients.

Aptitude Tests. Almost all of the variables regarded as aptitude tests make some unique contribution to the battery. The two least likely to do so are the Vocabulary and Scientific Attitude Scales in Part I of the Information Test.

Among the tests that have relatively large unique components are Creativity, Word Functions in Sentences, Disguised Words, Visualization in Two Dimensions, and Visualization in Three Dimensions.

Achievement Tests. Among the variables that more clearly measure achievement, three whose unique components appear to be relatively slight are the Biological Science Information Test, the Punctuation Test, and, in grade 9, the Literature Information Test.

The Mathematics Information Test and Part II of the Mathematics Test appear to be measuring essentially the same underlying function. Or, to put this conclusion somewhat more cautiously, the data provide no clear-cut statistical evidence that different functions underlie the scores on these two tests.

Abilities Measured by the Aptitude Tests

Basis for Conclusions. The findings and conclusions presented below are based mostly on the pattern of intercorrelations considered in conjunction with the reliability coefficients--in other words, essentially an informal factor analysis. A formal factor analysis will be completed at a later date. Meanwhile the conclusions must be regarded as only tentative.

The Common Factors Measured. Among the common factors, many of them interrelated among themselves, that can be tentatively identified are the following:

1. General verbal ability. The Vocabulary Scale may be regarded as yielding virtually a pure measure of this. The Reading Comprehension Test also provides an excellent measure of general verbal ability, though having, in addition, a small specific component.

Total scores on the Information Test, which measure amount of general information (as opposed to the relative amounts of information acquired in different fields) appear to involve a very large component of general verbal ability. This is partly a matter of definition, since a person's vocabulary is both a measure of his verbal ability and a sample of his information. In addition, however, there may be a large causal relationship, since information is usually expressed and assimilated in verbal terms, and therefore the ability to comprehend and use language is an important component of the ability to acquire and retain information. Scientific Attitude scores, too, appear to depend almost entirely on general verbal ability.

General verbal ability is also measured, in varying degrees, by many of the other tests, notably the Memory for Words Test and the Disguised Words Test. It is probably closer to a general factor than any of the other factors measured by the battery.

2. Reasoning. This is measured primarily by the Abstract Reasoning, Arithmetic Reasoning, and Reading Comprehension scores. (This factor appears to be closely related to general verbal ability.) It is also a substantial component of the Mechanical Reasoning Test and of the Creativity Test.

3. Rote memorization. This is measured by the Memory for Words Test and the Memory for Sentences Test.

4. Spatial visualization. The best measure of this is the Visualization in Three Dimensions Test and the second best is the Visualization in Two Dimensions Test. The Mechanical Reasoning Test also seems to have a substantial spatial visualization component.

5. Visual perception. Scores on such tests as Clerical Checking and Object Inspection represent this factor to a substantial degree.

6. Speed of response. This factor, representing tendency to respond quickly to test items, affects scores on Table Reading, Clerical Checking, Object Inspection, and the Preferences Test. The factor also appears to be a substantial component of the Disguised Words Test.

7. Speed of decision. The number of items answered on the Preferences Test (in a very limited time) was intended to yield a measure of speed in making one kind of decision. There is some evidence (for instance, the correlation of this score with the Impulsiveness score in the Student Activities Inventory) that the test is doing what it was designed to do. The speed-of-decision factor may be related, to a substantial extent, to the negative pole of the general verbal ability factor. Negative correlations between the Preferences score and scores

on most of the cognitive tests suggest that the more mature and brighter a student is, the better able he is to recognize the dilemma posed by some of the Preferences items and the less willing he is to make snap judgments.

8. Information in the Mechanical-Electrical-Electronic Domain. While the Mechanical Information, Electrical-Electronic Information, and Aeronautics and Space Information Scales are not identical in regard to the underlying abilities they involve, their patterns appear to have enough in common and are sufficiently different from those of other tests to suggest a common factor linking them. It should be noted that the Electrical-Electronic Information Scale, unlike its Mechanical Information counterpart, contains large elements of physical-science information and mathematical ability. In these respects, aeronautical information resembles electrical-electronic information much more than it does mechanical information.

Important Specific Factors Measured. As indicated above, almost every one of the tests makes a unique contribution to the battery; in other words, the tests involve specific factors. In the case of a few of the tests, these specific factors are so substantial and appear so similar to factors that have shown up in previous research or so likely to prove important as predictors of various kinds of job-success criteria that it seems appropriate to single them out for special comment. Among them are:

1. Ingenuity. This seems to be the unique component of the Creativity Test.

2. Verbal fluency. This factor, which represents mental speed in making verbal associations rather than extensive knowledge of word meanings, is measured by the Disguised Words Test.

3. Sensitivity to grammatical structure. This is what the Word Functions in Sentences Test was designed to measure and presumably does measure.

Concluding Remarks Regarding the Common Factors. The writer well recognizes that in any factor analysis, whether formal or informal, an almost infinite number of different sets of common factors that would account for the tests' intercorrelations can be hypothesized. The partial set discussed briefly above seems to be a reasonable and useful way of conceptualizing these data.

Patterns of Information

Importance of Information Subscores. Both the relative amount and total amount of information acquired in different areas appear to depend in part on interest and opportunity as well as on ability.

Information in the Mechanical, Electrical-Electronic, and Aeronautical Areas. A common factor underlying the information scales in these areas has already been discussed under the heading "Abilities Measured by the Aptitude Tests." These areas are among the ones in which possession of specialized information is most likely to be indicative of specialized interests that can have predictive significance for success in such occupational fields as mechanic, electrician, and electronic technician. In a certain sense, then, information tests in these areas function as aptitude measures. It should be noted, however, that although mechanical information is closely related to the kind of aptitude measured by the Mechanical Reasoning Test, it is not functionally identical with it.

Information in Social Studies and the Humanities. Except for small unique components, the correlational patterns of tests of literature information, music information, and social-studies information are much like that of vocabulary. Apparently, interests that high-school students may develop in the humanities and social-studies areas during the high-school years are likely to be in line with their general verbal ability. Information about law, foreign travel, theater and ballet, art, and architecture appears to go along with this social-studies-and-humanities interest.

Science Information. Information about science, especially physical science, tends to be somewhat more specialized and less like general verbal ability than is information in the humanities and social-studies areas.

Information in Academic Areas. There appears to be a factor of some sort underlying the information scores in all academic areas. This factor, which might be termed the "doing-well-in-school" factor or, somewhat more formally, the academic achievement factor, is closely related to general verbal ability but is not identical with it. This academic information factor may involve a strong motivational element.

Information in Nonacademic Areas. There is no common factor analogous to the academic information factor that links all the nonacademic areas.

Information Scales that Have Large Unique Components. There are some areas in which amount of information appears to have relatively little over-all relationship to amount of general information. Two such areas are hunting and fishing. Interest in these areas appears to follow a pattern quite unlike that of interest in more intellectually oriented areas. Bible Information is another scale that has a correlational pattern quite unlike that of the other information scales.

Achievement in English

1. There are very close relationships among the five English subscores: Spelling, Capitalization, Punctuation, English Usage, and Effective Expression. Contrary to the findings of some researchers,

spelling ability appears to have relatively little unique variance, although it does have some.

2. Of the five English subtests, Punctuation appears to be the one that involves the greatest element of reasoning. The explanation probably lies in the fact that knowing how to punctuate correctly is not merely a matter of memorizing a few rules; the ability to reason out what rule applies is also involved. (In this respect it is very different from capitalization, which is much more a matter of memorizing a few simple rules and applying them mechanically.)

3. The two subtests that are most similar in terms of the underlying abilities involved (as shown by their correlation patterns) are English Usage and Effective Expression. This is not at all surprising in view of their surface similarity, both of them involving the best way of expressing a given idea.

Achievement in Mathematics

1. Of four separate subscores in mathematics (the three part scores on the Mathematics Test and the mathematics subscore on the Information Test), two (Part II and Mathematics Information) have virtually identical correlational patterns. Hence, there is no reason to believe that the abilities underlying these two tests are different. This does not mean, however, that memorizing definitions and factual statements will automatically endow one with genuine comprehension of concepts and the ability to figure out the solution to problems. A far more plausible hypothesis is that as a student's understanding of concepts increases, his mastery of the definitions, vocabulary, and facts that go along with those concepts also increases.

2. The total score in mathematics, now obtained by combining Parts I, II, and III, could probably be made even more reliable without changing its factorial composition to any important degree by incorporating the Mathematics Information scores in it. Such a score would be useful in many situations (although, of course, it could not be used in conjunction with Information Total when experimentally independent scores are required).

3. Although Part III of the Mathematics Test was designed specifically to cover mathematics customarily taught in grades beyond the ninth, scores on it are nevertheless useful and informative in the case of some ninth graders, since experimental curricula may put some of the usual tenth-grade topics in grade 9 and also since unusually good students may be able to answer questions about points on which they never received formal instruction. The scores on Part III thus serve to differentiate among the top-scoring students in mathematics.

4. For the vast majority of ninth-grade students, scores on Part III are very unreliable, as was expected, since for these students getting the right answer is largely a matter of chance.

Comparison of Correlational Patterns for Boys and Girls

1. Sizable discrepancies between test correlations based on boys and the corresponding ones based on girls are almost all explainable in terms of differences in reliability for the two sexes. Thus the factorial composition of the tests is probably about the same for boys and girls.

2. This suggests that test variables that prove to be valid predictors of the success of boys in some kind of job or training are likely to be equally effective for girls, provided, of course, that the tests are not too hard or too easy to differentiate among the group reliably, and also provided that the performance in the activity requires the same kinds of aptitudes for girls and for boys.

Comparison of Correlational Patterns for Different Grades

1. The level of a test's correlations with other tests tends to be markedly more variable in grade 12 than in grade 9. The correlations that are relatively high in grade 9 tend to be even higher in grade 12, and those that are relatively low, even lower. Differences between test reliability in the two grades are not sufficient to account for this phenomenon.

2. Despite large differences between the ranges of correlation coefficients in the two grades, there is little difference between the median coefficients.

3. One hypothesis that fits these findings is that as boys and girls pass through adolescence the importance of the "general-ability factor" in determining success in various activities is lessened and specialized factors become more important.

4. The intensification of special talents in adolescence is probably due at least partly to differential interests and opportunities. This suggests that the high-school years are the period during which a student's pattern of special abilities takes more definite shape. To what extent this shape can and should be influenced by guidance is an important problem. A related problem that should be of concern to educators is the student's age when decisions are made about the curriculum he follows. Such decisions may have an important bearing on his future education and career, and these decisions may be difficult or impossible to revise later.

The Tests as Predictors of College Entry

1. Data are available for grade-12 boys (but not for girls), showing the correlation of most of the TALENT tests with whether the student enters college or does not enter college within a year of high-school graduation. Multiple regression weights for predicting this dichotomy from a combination of 51 test scores are also available together with the resulting multiple correlation coefficient, which is .57.

2. The tests that are the best predictors of whether a boy will enter college fall in two categories: those that are directly related to high-school subjects (for instance, mathematics, science, social studies, literature, and English) and other variables that have very high components of general verbal ability (for instance, reading and vocabulary, neither of which is a subject taught formally in high school).

3. Almost all of the tests, whether school-related or not, have a positive correlation with college entrance. The chief exception is the Hunting Information Test, which has a correlation of about zero with college entrance or failure to enter. High-school means for grade-12 boys on this variable have a definitely negative correlation with percentage of boys entering college. For the Fishing Information Test, too, the correlation with college entrance is close to zero.

4. The best single predictor and the best predictor in a combination of 51 Project TALENT test variables is Mathematics Information, which has a zero-order correlation of .52 (nearly as high as the multiple correlation) with college entrance and also has by far the largest beta weight. The second largest beta weight, somewhat surprisingly, is for Part II of the Mathematics Test, which is the test most like the Mathematics Information Test in terms of the underlying abilities measured. Mathematical knowledge and ability apparently play a major role in determining whether a boy will go to college.

Chapter 3

WHAT THE AMERICAN HIGH-SCHOOL STUDENT KNOWS

Norms for Project TALENT Variables

Norms for 80 Project TALENT variables have been prepared and are shown in Tables 3-1 and 3-2. Means and standard deviations are given in Table 3-1.[1] Selected percentile ranks are presented in Table 3-2. For most of the variables 19 percentile ranks are shown; for a few variables made up of a small number of items only seven are shown. In each case, the norms are given for boys, for girls, and for the sexes combined in each of the four grades (9, 10, 11, and 12).

Included in the 80 variables for which norms are provided are 68 separate tests and subtests and 12 a priori composites. The name and make-up of each of the latter are given in Table B-2 in Appendix B. No further description of them need be provided here.

The norms are derived from distributions of scores in a 10-per-cent representative sample of Project TALENT cases called Subsample A-10.0-3.[2] These cases have been appropriately weighted to make the distributions of their scores approach as closely as possible those in the American population of high-school students at each of grades 9-12.

Norms for most of the same variables in a sample representative of the American population of 15-year-olds (in or out of school) have been reported previously.[3]

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[1] Means and standard deviations are also shown in this table for an 81st variable, Miscellaneous Information (R-152) to complete this set of statistics on the Information Test. R-152 is not included in Table 3-2, since percentile ranks for this variable seem inappropriate.

[2] Described in Chapter 2 and in Appendix A, Table A-1.

[3] Shaycoft, M. F.; Dailey, J. T.; Orr, D. B.; Neyman, C. A., Jr.; and Sherman, S. E. Studies of a Complete Age Group--Age 15. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1963.

The Project TALENT Score Distributions

Growth From Grade to Grade

For almost all of the 81 Project TALENT variables, the means increase consistently from grade 9 through grade 12. Raw-score values corresponding to every percentile rank similarly increase. Exceptions occur in the case of a few variables. Chief among them is the Preferences Test (A-500), which, strictly speaking, is not a test at all but an indirect measure of a specific personality trait. A high score is not necessarily better than a lower score, since an extremely high score (i.e., an extremely rapid response rate) may indicate undue haste in making certain decisions. Neither boys nor girls exhibit a pattern of steady increase in score from grade to grade on this variable. This finding may indicate that some growth occurs in judiciousness in making decisions (at least in making decisions concerning one's friends and associates). Other areas in which slight reversals occur between consecutive grades are Physical Science Information (R-107), Aeronautics and Space Information (R-110), and Hunting Information (R-145). These reversals occur in the girls' means but not in the boys'. The explanation probably lies in the fact that physical science, aeronautics, and hunting are areas in which the average high school girl has little interest.

Although the average score on most of the tests increases steadily from grade to grade, these differences are all slight in comparison with the differences in ability within a grade.

Sex Differences in Test Performance

Inspection of the raw scores corresponding to the percentile ranks in Table 3-2 reveals few surprises in regard to the ways boys and girls differ in their patterns of aptitude and achievement. When very large differences occur between scores of boys and girls, they almost always reflect great differences between the sexes in amount of interest. For instance, boys score much higher than girls in information about aeronautics and space, mechanics, electricity and electronics, sports, hunting, and fishing. Boys also score far higher in mechanical reasoning. They tend, too, to score somewhat better than girls on aptitude measures such as Visualization in Two Dimensions (R-281), Visualization in Three Dimensions (R-282), and Creativity (R-260).

Boys tend to do better than girls in mathematics, particularly at the upper grade levels, and they know more about physical science. But it is noteworthy that their superiority in the latter area is not nearly so great as in related nonacademic areas, such as electricity and electronics. This suggests that boys have more information in these areas primarily because they are more interested and are therefore more likely to take optional courses in areas such as physics. The relation between interests and information is discussed in some detail in a later chapter. The matter is mentioned at this point primarily to suggest that differences in amount of information are sometimes but not always indicative of differences in intrinsic ability in a subject.

Girls do much better than boys in Home Economics Information, which is an area in which they are more interested and have more training, either formal or informal. And they do better on all tests that are strictly measures of language skill. Among these tests are English (including all its subscores), Word Functions in Sentences, and Disguised Words. Girls know more than boys about music, art, architecture, theater and ballet, foods, and etiquette. And they know much more than boys about the names of colors. They also know a little more than boys about activities of a clerical nature.

There is little difference between boys and girls around the middle and top of the distributions of scores on the Reading Comprehension Test (R-250). But towards the bottom of the distributions (e.g., in the lowest 5 per cent), the boys score much lower than the girls. This is consistent with the well-known fact that there are many more boys than girls who have serious reading disabilities. Further evidence along these lines is provided by the Screening Scale (R-101), on which the bottom of the distribution for boys extends to lower raw scores than the distribution for girls. As in reading, boys and girls do about equally well on the Abstract Reasoning Test (R-290), but here the finding holds throughout the range, rather than just at the middle and top levels of ability. Girls are much better than boys on the Arithmetic Computation Test (F-410) at the ninth-grade level, but by the time grade 12 is reached, there is little difference between them. This closing of the gap probably occurs because boys take more advanced courses in which calculation is involved (mathematics and science courses, for instance), and thus get more practice in computation.

A somewhat similar result is obtained in the case of Arithmetic Reasoning (R-311) and Introductory High School Mathematics (R-312). At the grade-9 level there is hardly any difference between boys and girls on either of these variables. And students do not ordinarily receive much formal instruction in either of these areas beyond the ninth grade. Nevertheless by the time the twelfth grade is reached, the mean scores of boys are substantially higher than those of girls. These gains on the part of boys probably result from their wider use of mathematics skills in elective courses in mathematics and science and from review of such topics as elementary algebra.

It was a little surprising to find that boys obtained higher mean scores on the Vocabulary Scale (R-102) in Part I of the Information Test. On the Vocabulary Scale (R-162) in Part II of the Information Test, girls obtained higher mean scores than boys. A discussion of these results is presented in the next section.

Distributions of Scores on Vocabulary Tests

Knowledge of word meanings, in common with other verbal abilities, has long been thought to be one of the areas in which, on the average, girls are superior to boys. It would appear from the Project TALENT data that this is not uniformly true. Some vocabulary items were in

TABLE 3-1

Estimates of Means and Standard Deviations for National Population of High-School Students, by Grade and Sex, and by Grade for Boys and Girls Combined. Based on Subsample A-10.0-3[a/]

	Code No.	Means											
		Boys				Girls				Total			
		Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12
Information Test, Part I													
Screening	R-101	10.975	11.236	11.460	11.539	11.374	11.544	11.632	11.701	11.175	11.391	11.547	11.623
Vocabulary	R-102	11.099	12.249	13.313	14.066	9.990	10.952	11.907	12.812	10.543	11.597	12.598	13.411
Literature	R-103	10.069	11.650	13.013	14.017	9.797	11.425	12.795	14.063	9.933	11.537	12.902	14.041
Music	R-104	4.962	5.309	6.087	6.458	5.602	6.076	6.617	7.266	5.283	5.794	6.357	6.880
Social Studies	R-105	13.135	14.171	16.085	16.754	11.571	12.267	14.204	14.728	12.351	13.215	15.128	15.695
Mathematics	R-106	7.031	8.433	10.349	11.322	6.170	7.194	7.937	7.992	6.599	7.811	9.123	9.581
Physical Science	R-107	8.659	8.837	9.743	10.405	7.017	6.768	6.945	7.291	7.835	7.798	8.320	8.777
Biological Science	R-108	5.322	6.384	6.695	6.768	4.488	5.556	5.746	5.729	4.904	5.969	6.212	6.225
Scientific Attitude	R-109	5.125	5.702	6.173	6.468	5.272	5.684	6.112	6.438	5.199	5.693	6.142	6.452
Aeronautics and Space	R-110	4.197	4.523	4.819	5.050	2.601	2.587	2.657	2.793	3.397	3.551	3.719	3.870
Electricity, Electronics	R-111	8.017	8.570	9.578	10.400	5.179	5.247	5.346	5.598	6.594	6.901	7.426	7.889
Mechanics	R-112	10.480	11.576	12.747	13.402	6.766	7.329	7.845	8.316	8.617	9.443	10.254	10.743
Farming	R-113	7.120	7.682	8.149	8.451	6.460	6.938	7.329	7.568	6.789	7.308	7.732	7.989
Home Economics	R-114	7.356	8.001	8.671	9.077	11.144	12.058	12.749	13.371	9.256	10.038	10.745	11.322
Sports	R-115	7.019	7.685	8.304	8.860	4.763	5.302	5.677	6.070	5.887	6.488	6.968	7.402
Information Test, Part II													
Art	R-131	5.243	5.701	6.246	6.515	5.446	5.96[illegible]	6.429	6.836	5.345	5.831	6.339	6.683
Law	R-132	4.099	4.579	5.068	5.606	3.709	3.966	4.387	4.852	3.903	4.281	4.722	5.212
Health	R-133	4.747	5.404	5.828	6.114	5.257	5.904	6.232	6.523	5.003	5.655	6.033	6.328
Engineering	R-134	2.789	3.048	3.394	3.544	2.272	2.468	2.662	2.864	2.530	2.757	3.021	3.188
Architecture	R-135	2.233	2.492	2.714	2.890	2.253	2.470	2.627	2.785	2.243	2.481	2.670	2.835
Journalism	R-136	1.373	1.539	1.778	1.992	1.380	1.550	1.772	2.011	1.376	1.544	1.775	2.002
Foreign Travel	R-137	2.349	2.617	2.797	2.955	1.996	2.177	2.294	2.529	2.172	2.396	2.542	2.732
Military	R-138	2.107	2.368	2.676	2.953	1.605	1.769	1.950	2.192	1.855	2.067	2.307	2.555
Acct., Bus., Sales	R-139	3.777	4.192	4.719	5.378	3.708	4.081	4.706	5.369	3.742	4.136	4.713	5.373
Practical Knowledge	R-140	2.650	2.898	3.159	3.295	2.815	3.002	3.163	3.296	2.733	2.950	3.161	3.295
Clerical	R-141	1.161	1.435	1.849	2.066	1.425	1.866	2.369	2.556	1.294	1.651	2.113	2.322
Bible	R-142	6.106	6.554	7.150	7.510	6.320	6.872	7.257	7.731	6.214	6.714	7.205	7.625
Colors	R-143	1.021	1.087	1.161	1.239	1.408	1.542	1.706	1.858	1.215	1.315	1.438	1.562
Etiquette	R-144	0.741	0.815	0.915	1.008	0.999	1.098	1.154	1.229	0.871	0.957	1.036	1.124
Hunting	R-145	1.964	2.182	2.335	2.448	1.015	1.094	1.146	1.143	1.488	1.635	1.730	1.766
Fishing	R-146	1.554	1.695	1.878	1.942	0.960	0.990	1.052	1.058	1.256	1.341	1.458	1.480
Outdoor Activities(other)	R-147	4.315	4.769	5.114	5.314	3.829	4.162	4.403	4.567	4.071	4.464	4.752	4.924
Photography	R-148	1.058	1.193	1.340	1.420	1.121	1.263	1.371	1.418	1.090	1.228	1.355	1.419
Games (sedentary)	R-149	2.222	2.363	2.476	2.477	1.917	1.974	2.019	2.077	2.069	2.168	2.244	2.268
Theater and Ballet	R-150	3.240	3.636	4.062	4.400	3.830	4.184	4.560	5.003	3.536	3.911	4.315	4.715
Foods	R-151	0.965	1.078	1.168	1.309	1.181	1.301	1.477	1.716	1.073	1.190	1.325	1.522
Miscellaneous	R-152	4.219	4.624	4.927	5.126	4.056	4.319	4.505	4.729	4.138	4.471	4.712	4.919
Vocabulary II	R-162	4.868	5.397	5.939	6.350	5.229	5.650	6.064	6.501	5.049	5.524	6.002	6.429
Info. Test, Composites													
Vocabulary Total (I+II)	R-172	15.967	17.645	19.252	20.416	15.220	16.602	17.970	19.313	15.592	17.122	18.600	19.839
Information I Total	R-190	120.567	132.209	145.186	153.035	108.193	116.926	125.497	131.735	114.361	124.534	135.173	141.900
Information II Total	R-192	59.934	66.267	72.752	77.501	58.502	64.031	69.240	74.342	59.216	65.144	70.966	75.849
Information Total (I+II)	R-100	180.501	198.476	217.938	230.535	166.695	180.957	194.737	206.077	173.576	189.678	206.139	217.749
Memory for Sentences	R-211	8.577	8.655	8.708	8.752	9.245	9.436	9.413	9.473	8.912	9.047	9.066	9.129
Memory for Words	R-212	9.622	10.199	10.977	11.308	11.082	12.058	12.918	13.167	10.354	11.133	11.964	12.280
Disguised Words	R-220	12.155	13.463	14.866	15.570	13.350	14.702	16.212	17.363	12.754	14.085	15.551	16.507
English Test													
Spelling	R-231	7.481	8.126	8.839	9.434	8.997	9.592	10.399	11.066	8.241	8.862	9.632	10.287
Capitalization	R-232	27.464	28.285	29.121	29.351	29.022	29.692	30.171	30.394	28.245	28.991	29.655	29.896
Punctuation	R-233	15.133	16.088	16.987	17.783	16.918	18.016	18.938	19.661	16.028	17.056	17.979	18.765
Usage	R-234	14.923	15.660	16.456	16.972	16.070	16.722	17.362	17.997	15.498	16.193	16.916	17.508
Effective Expression	R-235	7.289	7.961	8.535	9.028	8.122	8.617	9.105	9.536	7.707	8.290	8.825	9.293
English Total	R-230	72.383	76.213	79.992	82.643	79.226	82.682	86.007	88.684	75.815	79.462	83.051	85.801
Word Function in Sentences	R-240	7.860	8.874	9.823	10.561	9.098	10.552	11.397	12.060	8.481	9.717	10.623	11.345
Reading Comprehension	R-250	24.553	27.517	30.841	33.023	26.091	29.053	31.462	33.555	25.324	28.289	31.157	33.301
Creativity	R-260	7.696	8.425	9.448	10.269	7.232	7.884	8.614	9.224	7.463	8.154	9.024	9.723
Mechanical Reasoning	R-270	11.173	12.097	12.868	13.457	7.833	8.371	8.626	8.835	9.498	10.225	10.711	11.040
Vis. in 2 Dimen.	R-281	12.464	13.408	14.193	14.395	10.901	11.492	11.770	11.899	11.680	12.446	12.961	13.090
Vis. in 3 Dimen.	R-282	8.081	8.684	9.269	9.712	7.308	7.784	8.173	8.462	7.693	8.232	8.711	9.058
Abstract Reasoning	R-290	8.051	8.610	9.193	9.625	8.054	8.477	8.870	9.244	8.053	8.543	9.029	9.426

TABLE 3-1 (continued)

Standard Deviations												No. of Items	Code No.
Boys				Girls				Total					
Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12		
1.671	1.433	1.187	1.105	1.279	1.040	0.960	0.812	1.501	1.260	1.081	0.966	12	R-101
4.008	3.936	3.879	3.734	3.869	3.973	4.141	4.018	3.978	4.008	4.076	3.935	21	R-102
4.025	4.375	4.549	4.681	3.795	4.121	4.463	4.744	3.914	4.251	4.507	4.714	24	R-103
2.761	2.845	2.960	3.030	2.833	2.825	2.985	2.962	2.816	2.849	2.985	3.022	13	R-104
5.483	5.356	5.216	4.982	4.911	4.834	5.000	4.950	5.262	5.188	5.193	5.067	24	R-105
3.881	4.696	5.784	6.135	3.441	4.273	5.209	5.248	3.692	4.531	5.630	5.926	23	R-106
3.860	3.868	4.195	4.365	3.472	3.480	3.733	3.942	3.761	3.821	4.206	4.431	18	R-107
2.381	2.369	2.309	2.320	2.164	2.309	2.255	2.269	2.313	2.376	2.331	2.351	11	R-108
2.017	1.943	1.920	1.871	1.935	1.935	1.939	1.858	1.977	1.939	1.930	1.864	10	R-109
2.328	2.346	2.431	2.485	1.616	1.622	1.722	1.768	2.156	2.236	2.362	2.419	10	R-110
4.020	4.041	4.351	4.526	2.578	2.421	2.557	2.757	3.661	3.719	4.136	4.416	20	R-111
3.551	3.414	3.324	3.322	2.784	2.822	2.936	3.103	3.691	3.783	3.977	4.093	19	R-112
2.560	2.430	2.338	2.209	2.608	2.533	2.508	2.480	2.605	2.510	2.460	2.396	12	R-113
2.783	2.899	2.913	3.028	3.389	3.341	3.320	3.188	3.634	3.729	3.733	3.780	21	R-114
3.020	2.992	2.911	2.794	2.335	2.426	2.474	2.503	2.924	2.972	3.000	2.990	14	R-115
2.523	2.497	2.476	2.554	2.560	2.509	2.513	2.581	2.544	2.506	2.497	2.573	12	R-131
1.768	1.803	1.767	1.795	1.602	1.589	1.673	1.783	1.698	1.725	1.753	1.828	9	R-132
2.115	2.088	1.964	1.902	2.041	1.962	1.864	1.753	2.094	2.041	1.924	1.837	9	R-133
1.292	1.259	1.221	1.176	1.271	1.272	1.267	1.251	1.307	1.298	1.297	1.262	6	R-134
1.249	1.363	1.374	1.382	1.226	1.264	1.271	1.296	1.238	1.314	1.323	1.339	6	R-135
0.977	0.973	0.969	0.934	0.949	0.966	0.984	0.917	0.963	0.970	0.977	0.925	3	R-136
1.304	1.323	1.327	1.363	1.277	1.265	1.354	1.378	1.303	1.313	1.364	1.387	5	R-137
1.389	1.456	1.514	1.485	1.155	1.176	1.221	1.271	1.301	1.356	1.420	1.429	7	R-138
1.821	.869	1.902	2.002	1.760	1.853	1.936	2.050	1.791	1.862	1.920	2.027	10	R-139
1.099	1.030	0.904	0.855	0.958	0.907	0.833	0.788	1.034	0.971	0.869	0.820	4	R-140
0.777	0.841	0.861	0.840	0.855	0.869	0.764	0.677	0.828	0.882	0.854	0.798	3	R-141
3.160	3.274	3.334	3.345	3.125	3.206	3.271	3.315	3.144	3.244	3.303	3.331	15	R-142
0.833	0.846	0.859	0.908	0.900	0.919	0.944	0.943	0.888	0.912	0.943	0.977	3	R-143
0.675	0.680	0.678	0.683	0.730	0.725	0.726	0.707	0.715	0.717	0.713	0.704	2	R-144
1.207	1.231	1.238	1.272	0.905	0.910	0.912	0.912	1.167	1.211	1.237	1.277	5	R-145
1.180	1.241	1.264	1.286	0.894	0.899	0.912	0.943	1.088	1.139	1.174	1.204	5	R-146
1.968	1.923	1.810	1.780	1.833	1.834	1.810	1.785	1.917	1.903	1.845	1.821	9	R-147
0.757	0.740	0.728	0.726	0.701	0.673	0.654	0.644	0.730	0.708	0.692	0.684	3	R-148
1.196	1.206	1.166	1.159	0.997	1.029	0.984	0.980	1.111	1.137	1.101	1.088	5	R-149
1.612	1.662	1.739	1.750	1.717	1.745	1.824	1.799	1.691	1.726	1.800	1.801	8	R-150
0.919	0.959	1.002	1.053	0.999	1.006	1.056	1.080	0.966	0.989	1.041	1.086	4	R-151
1.873	1.850	1.856	1.799	1.676	1.645	1.667	1.638	1.779	1.757	1.775	1.728	10	R-152
2.369	2.310	2.202	2.133	2.219	2.128	2.064	1.960	2.302	2.224	2.134	2.046	9	R-162
5.915	5.812	5.645	5.462	5.601	5.623	5.746	5.524	5.772	5.742	5.733	5.522	30	R-172
36.293	36.244	37.362	37.512	30.610	31.216	33.566	33.862	34.129	34.665	36.822	37.204	252	R-190
20.181	20.405	19.947	19.957	18.004	17.989	18.330	18.527	19.133	19.262	19.223	19.288	143	R-192
54.956	55.160	55.817	55.914	47.185	47.785	50.558	50.954	51.669	52.326	54.457	54.759	395	R-100
3.097	3.011	3.054	3.161	2.990	3.077	3.034	3.193	3.062	3.069	3.064	3.198	16	R-211
4.702	4.880	5.319	5.344	5.081	5.456	5.660	5.689	4.950	5.260	5.580	5.604	24	R-212
6.184	6.694	6.991	7.009	6.667	6.774	7.067	6.965	6.458	6.763	7.062	7.044	30	R-220
2.946	2.979	3.033	3.004	2.858	2.797	2.787	2.762	2.999	2.980	3.013	2.993	16	R-231
5.132	4.797	4.246	4.421	4.435	4.023	3.480	3.473	4.858	4.481	3.911	3.988	33	R-232
4.518	4.512	4.629	4.603	4.456	4.557	4.406	4.358	4.575	4.636	4.621	4.574	27	R-233
3.653	3.531	3.432	3.503	3.196	3.271	3.130	3.226	3.479	3.444	3.313	3.400	25	R-234
2.655	2.513	2.375	2.264	2.312	2.191	2.121	1.995	2.523	2.380	2.267	2.143	12	R-235
14.769	14.152	13.810	14.059	13.111	13.254	12.324	12.578	14.375	14.085	13.417	13.644	113	R-230
4.535	5.010	5.354	5.391	5.086	5.545	5.733	5.732	4.859	5.352	5.606	5.622	24	R-240
10.980	11.006	10.893	10.483	10.347	10.095	10.038	9.806	10.695	10.586	10.472	10.138	48	R-250
3.793	3.961	4.167	4.217	3.535	3.640	3.780	3.866	3.673	3.813	3.997	4.071	20	R-260
4.040	4.085	4.105	4.109	3.372	3.480	3.591	3.626	4.077	4.226	4.398	4.501	20	R-270
5.674	5.755	5.759	5.586	5.417	5.621	5.632	5.626	5.602	5.768	5.822	5.744	24	R-281
3.288	3.337	3.453	3.429	2.903	2.968	2.997	3.155	3.125	3.189	3.275	3.347	16	R-282
3.157	3.047	3.042	2.984	3.125	3.079	2.997	2.959	3.141	3.064	3.023	2.977	15	R-290

TABLE 3-1 (continued)

	Code No.	Means											
		Boys				Girls				Total			
		Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12
Mathematics Test													
I Arithmetic Reasoning	R-311	7.354	8.127	9.023	9.806	7.011	7.606	8.195	8.773	7.182	7.865	8.602	9.266
II Introd. H.S. Math	R-312	9.240	10.048	11.551	12.379	9.347	9.710	10.095	10.254	9.294	9.878	10.811	11.268
I + II	R-320	16.594	18.175	20.575	22.183	16.358	17.315	18.290	19.027	16.476	17.743	19.413	20.533
III Advanced	R-333	2.356	2.960	3.912	4.414	2.121	2.631	3.043	3.099	2.238	2.794	3.470	3.726
II + III H.S. Math	R-334	11.596	13.008	15.463	16.793	11.468	12.340	13.138	13.352	11.532	12.673	14.281	14.994
Math Total (I+II+III)	R-340	18.904	21.112	24.467	26.584	18.402	19.910	21.266	22.095	18.652	20.508	22.839	24.237
Arithmetic Computation	F-410	19.427	23.207	27.933	31.650	26.887	28.457	31.074	33.688	23.168	25.843	29.530	32.715
Table Reading	F-420	4.893	7.655	9.751	11.338	7.730	9.714	10.691	11.777	6.316	8.689	10.229	11.568
Clerical Checking	F-430	15.678	20.612	23.358	25.985	22.329	26.812	29.089	31.665	19.013	23.726	26.272	28.954
Object Inspection	F-440	18.607	20.264	21.751	22.132	20.249	21.549	22.543	22.912	19.430	20.909	22.154	22.540
Preferences	A-500	59.090	57.653	58.140	58.749	57.449	58.222	57.486	57.923	58.267	57.939	57.808	58.317
A Priori Composites													
IQ Composite	C-001	143.333	158.106	174.580	186.419	146.588	159.970	171.515	181.974	144.965	159.042	173.021	184.095
Gen. Acad. Apt. Comp.	C-002	435.305	470.646	512.604	540.758	455.873	485.492	512.667	534.080	445.620	478.102	512.636	537.267
Verbal Composite	C-003	98.419	105.508	112.256	117.076	104.242	110.709	116.772	122.059	101.340	108.120	114.553	119.681
Quantitative Composite	C-004	82.511	93.278	109.621	119.233	79.245	86.565	93.011	95.712	80.873	89.907	101.174	106.937
Technical Composite	C-005	47.848	51.987	56.450	59.480	33.884	35.858	37.164	38.560	40.845	43.887	46.642	48.544
Scientific Aptitute Comp.	C-006	461.745	508.448	566.924	607.316	414.267	448.718	479.382	504.059	437.933	478.452	522.405	553.337
H.S. Acad.Achieve.Comp.	C-007	218.095	240.354	266.656	281.541	210.278	228.348	244.855	254.005	214.175	234.324	255.570	267.146
Acad.Ach.(curri.-linked)	C-008	311.326	344.148	382.311	406.127	304.528	332.089	356.949	373.601	307.917	338.092	369.410	389.18
Foreign Lang. Apt. Comp.	C-009	156.211	168.800	182.165	190.543	172.376	186.360	198.523	207.419	164.318	177.619	190.484	199.365
Tech.Comp.(non-academic)	C-010	165.957	179.585	193.811	203.724	120.307	126.775	131.819	136.789	143.062	153.064	162.286	168.733
Composite T	C-011	33.867	36.766	40.012	42.308	22.379	23.533	24.473	25.541	28.106	30.120	32.110	33.543
Composite S	C-012	226.056	249.238	278.970	297.674	180.897	194.138	204.503	211.393	203.407	221.566	241.100	252.570
Unweighted N		3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
Weighted N in Thousands (N')		822	813	735	619	827	820	761	678	1649	1634	1496	1298

TABLE 3-1 (continued)

Standard Deviations												No. of Items	Code No.
Boys				Girls				Total					
Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12		
3.448	3.456	3.572	3.670	3.280	3.435	3.546	3.540	3.369	3.455	3.583	3.639	16	R-311
4.185	4.491	5.359	5.628	3.852	4.176	4.818	4.854	4.022	4.339	5.143	5.344	24	R-312
6.960	7.231	8.233	8.638	6.422	6.874	7.606	7.592	6.696	7.067	8.002	8.260	40	R-320
1.655	1.934	2.622	3.053	1.491	1.740	2.225	2.310	1.579	1.846	2.467	2.769	14	R-333
4.900	5.677	7.448	8.216	4.384	5.147	6.473	6.597	4.649	5.428	7.065	7.610	38	R-334
7.587	8.362	10.233	11.141	6.926	7.773	9.193	9.228	7.267	8.094	9.849	10.430	54	R-340
27.925	24.307	21.178	20.187	21.238	19.747	18.866	18.360	25.077	22.290	20.097	19.280	72	F-410
11.271	12.187	11.116	11.143	8.864	9.237	8.175	7.969	10.234	10.856	9.744	9.617	72	F-420
21.794	21.817	20.620	19.633	19.877	19.783	18.972	18.100	21.118	21.050	20.006	19.060	74	F-430
8.820	8.743	8.343	8.223	7.620	7.680	7.433	7.534	8.281	8.251	7.903	7.880	40	F-440
27.744	25.779	25.005	24.995	22.696	21.986	21.184	21.001	25.351	23.951	23.143	22.998	166	A-500
53.876	52.968	53.335	52.589	51.755	51.325	51.562	50.390	52.848	52.157	52.463	51.499	283	C-001
120.039	119.459	125.068	125.991	109.698	111.814	114.930	112.585	115.428	115.921	120.019	119.218	829	C-002
22.210	21.717	21.329	21.286	20.139	20.420	20.080	20.090	21.396	21.235	20.826	20.818	167	C-003
33.313	38.163	48.117	52.257	29.680	34.[illegible]	42.548	42.935	31.585	36.721	46.124	49.040	246	C-004
16.179	15.969	16.465	17.002	11.310	11.[illegible]	12.274	12.933	15.601	16.055	17.401	18.291	98	C-005
158.640	161.176	175.107	179.582	135.956	141.269	152.341	152.618	149.595	154.421	169.667	173.859	1063	C-006
62.492	66.454	74.541	77.769	54.906	59.728	66.965	68.258	58.939	63.451	71.624	74.237	481	C-007
97.332	100.586	108.625	111.824	87.547	92.725	100.139	100.096	92.616	96.906	105.161	107.093	641	C-008
44.625	45.680	46.902	46.392	45.591	46.801	47.549	46.459	45.830	47.073	47.935	47.186	317	C-009
52.137	52.394	54.173	55.154	36.952	37.539	40.178	41.714	50.604	52.644	56.778	58.984	335	C-010
11.448	11.318	11.606	11.898	7.404	7.382	7.988	8.411	11.217	11.615	12.609	13.217	69	C-011
75.036	78.399	89.193	95.110	57.858	62.982	72.675	75.056	70.677	76.229	89.340	95.495	540	C-012
3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248		
822	813	735	619	827	820	761	678	1649	1634	1496	1298		

[a] The cases have been weighted to provide estimates of the statistics for the national population of high-school students. Weight A was used.

TABLE 3-2

Raw Scores Corresponding to Selected Percentiles
by Grade and Sex; for TALENT Tests

Table 3-2. Part 1
Information Test
R-101: Screening

12 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
98	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
95	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
90	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
85	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
80	11.8	11.8	11.9	11.9	11.9	11.9	11.9	11.9	11.8	11.9	11.9	11.9
75	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70	11.7	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
60	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.8	11.7	11.7	11.7	11.7
50	11.6	11.6	11.7	11.7	11.6	11.7	11.7	11.7	11.6	11.6	11.7	11.7
40	11.5	11.5	11.6	11.6	11.6	11.6	11.6	11.6	11.5	11.6	11.6	11.6
30	10.9	11.3	11.5	11.5	11.5	11.5	11.6	11.6	11.2	11.5	11.5	11.6
25	10.6	11.0	11.4	11.5	11.2	11.5	11.5	11.5	10.9	11.2	11.5	11.5
20	10.0	10.7	11.1	11.3	10.9	11.2	11.4	11.5	10.6	10.9	11.3	11.4
15	9.1	10.1	10.7	10.9	10.6	10.9	11.1	11.2	9.9	10.6	10.9	11.1
10	8.2	9.0	10.1	10.6	9.7	10.5	10.7	10.8	8.7	9.8	10.6	10.7
5	7.4	7.9	8.5	8.7	8.3	9.1	9.8	10.3	7.7	8.3	9.0	9.6
2	6.5	6.9	7.6	7.7	7.2	7.8	8.0	8.5	6.8	7.3	7.8	7.9
1	5.2	6.2	6.8	7.1	6.6	7.1	7.2	7.7	5.8	6.6	7.0	7.4
Mean	10.98	11.24	11.46	11.54	11.37	11.54	11.63	11.70	11.18	11.39	11.55	11.62
S.D.	1.67	1.43	1.19	1.10	1.28	1.04	0.96	0.81	1.50	1.26	1.08	0.97
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Note. -- The data in Parts 1-80 of Table 3-2 are based on Subsample A-10.0-3. Weight A was used.

TABLE 3-2 (continued)

Table 3-2. Part 2
Information Test
R-102: Vocabulary I

21 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	19.4	19.8	20.4	20.6	18.9	19.4	20.2	20.3	19.2	19.6	20.4	20.5
98	18.7	19.3	20.0	20.3	18.1	18.9	19.7	19.8	18.4	19.1	19.8	20.1
95	17.4	18.4	19.1	19.4	16.7	17.8	18.6	19.0	17.1	18.1	18.9	19.2
90	16.3	17.4	18.2	18.6	15.2	16.4	17.5	18.0	15.9	17.0	17.9	18.3
85	15.4	16.5	17.5	18.0	14.3	15.4	16.6	17.2	14.9	16.1	17.1	17.6
80	14.7	15.8	16.8	17.4	13.5	14.6	15.8	16.5	14.1	15.3	16.3	17.0
75	14.0	15.2	16.2	16.9	12.8	13.8	15.1	15.9	13.4	14.6	15.7	16.4
70	13.4	14.6	15.6	16.4	12.1	13.2	14.5	15.4	12.8	14.0	15.2	15.9
60	12.3	13.5	14.7	15.4	10.9	11.9	13.0	14.3	11.7	12.8	14.0	14.9
50	11.3	12.5	13.7	14.5	9.7	10.8	11.9	13.1	10.5	11.6	12.8	13.8
40	10.2	11.4	12.6	13.5	8.7	9.7	10.7	11.8	9.4	10.5	11.7	12.6
30	9.0	10.2	11.5	12.2	7.7	8.6	9.4	10.6	8.2	9.3	10.4	11.3
25	8.3	9.6	10.7	11.6	7.1	8.0	8.8	9.9	7.6	8.7	9.6	10.6
20	7.5	8.9	9.9	10.8	6.5	7.5	8.1	9.2	6.9	8.0	8.9	9.9
15	6.7	8.0	9.0	9.9	5.8	6.7	7.3	8.3	6.2	7.2	8.0	9.0
10	5.6	6.9	8.0	8.9	5.1	5.8	6.4	7.2	5.3	6.3	7.0	7.9
5	4.2	5.3	6.3	7.3	4.0	4.6	5.1	5.9	4.0	4.9	5.6	6.4
2	2.8	3.5	4.7	5.4	2.8	3.4	3.9	4.5	2.8	3.4	4.1	4.8
1	2.0	2.6	3.5	4.5	2.1	2.6	3.2	3.7	1.9	2.6	3.3	3.9
Mean	11.10	12.25	13.31	14.07	9.99	10.95	11.91	12.81	10.54	11.60	12.60	13.41
S.D.	4.01	3.94	3.88	3.73	3.87	3.97	4.14	4.02	3.98	4.01	4.08	3.94
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 3
Information Test
R-103: Literature

24 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	20.5	21.4	22.6	23.1	19.9	21.4	23.0	23.5	20.4	21.4	22.8	23.4
98	19.4	20.6	21.8	22.6	18.6	20.4	22.2	23.0	19.1	20.5	22.0	22.8
95	17.4	19.3	20.5	21.6	16.6	18.7	20.6	22.0	17.0	19.0	20.5	21.8
90	15.5	17.8	19.1	20.3	15.0	17.1	19.0	20.6	15.3	17.4	19.1	20.5
85	14.4	16.6	18.0	19.3	13.8	15.9	17.8	19.5	14.1	16.3	17.9	19.4
80	13.4	15.6	17.1	18.5	12.9	15.0	16.8	18.5	13.2	15.3	17.0	18.5
75	12.7	14.8	16.4	17.7	12.1	14.2	16.0	17.6	12.4	14.4	16.2	17.6
70	12.0	14.0	15.6	16.9	11.5	13.4	15.2	16.8	11.7	13.7	15.4	16.9
60	10.7	12.5	14.3	15.4	10.4	12.2	13.7	15.4	10.5	12.4	14.0	15.4
50	9.7	11.3	13.1	14.0	9.4	11.2	12.5	14.0	9.6	11.2	12.8	14.0
40	8.7	10.2	11.7	12.6	8.6	10.1	11.3	12.7	8.6	10.2	11.5	12.7
30	7.7	9.0	10.4	11.3	7.6	9.1	10.1	11.1	7.7	9.0	10.3	11.2
25	7.1	8.5	9.7	10.6	7.1	8.5	9.5	10.4	7.1	8.5	9.6	10.5
20	6.5	7.8	9.0	9.7	6.6	7.9	8.8	9.7	6.6	7.9	8.9	9.7
15	5.9	7.1	8.1	8.8	6.0	7.2	8.1	8.9	5.9	7.1	8.1	8.9
10	5.1	6.1	7.0	7.7	5.2	6.2	7.2	7.9	5.1	6.2	7.1	7.8
5	4.0	4.8	5.4	6.3	4.0	5.0	5.9	6.5	4.0	4.9	5.7	6.4
2	3.1	3.2	4.0	4.8	2.9	3.7	4.6	4.9	3.0	3.6	4.2	4.9
1	2.5	2.4	2.8	3.8	2.2	2.8	3.6	4.1	2.4	2.6	3.3	3.9
Mean	10.07	11.65	13.01	14.02	9.80	11.42	12.80	14.06	9.93	11.54	12.90	14.04
S.D.	4.02	4.38	4.55	4.68	3.80	4.12	4.46	4.74	3.91	4.25	4.51	4.71
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 4
Information Test
R-104: Music

13 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	11.8	11.9	12.4	12.6	12.1	12.3	12.5	12.6	12.0	12.1	12.5	12.6
98	11.2	11.4	12.0	12.3	11.5	11.8	12.2	12.4	11.4	11.6	12.1	12.4
95	10.1	10.6	11.2	11.5	10.6	11.0	11.5	11.9	10.4	10.8	11.3	11.7
90	9.0	9.6	10.3	10.6	9.6	10.0	10.6	11.1	9.3	9.8	10.4	10.9
85	8.1	8.8	9.5	10.0	8.9	9.3	10.0	10.5	8.5	9.1	9.8	10.3
80	7.4	8.2	8.9	9.4	8.2	8.7	9.5	10.1	7.9	8.4	9.2	9.8
75	6.8	7.6	8.3	8.8	7.7	8.1	9.0	9.6	7.3	7.9	8.7	9.3
70	6.3	7.1	7.8	8.3	7.2	7.6	8.5	9.2	6.7	7.4	8.2	8.8
60	5.4	6.1	6.8	7.3	6.2	6.8	7.5	8.3	5.8	6.5	7.2	7.9
50	4.5	5.2	5.9	6.3	5.4	6.0	6.6	7.5	5.0	5.6	6.3	6.9
40	3.9	4.5	5.0	5.4	4.6	5.1	5.7	6.5	4.2	4.8	5.3	6.0
30	3.2	3.7	4.2	4.5	3.8	4.3	4.7	5.5	3.5	4.0	4.4	5.0
25	2.9	3.3	3.8	4.1	3.4	3.9	4.2	5.1	3.1	3.6	4.0	4.6
20	2.5	2.9	3.4	3.6	3.0	3.5	3.8	4.6	2.8	3.1	3.6	4.0
15	2.1	2.5	2.9	3.1	2.6	3.0	3.3	3.9	2.3	2.7	3.0	3.5
10	1.6	1.9	2.3	2.5	2.0	2.5	2.6	3.1	1.8	2.1	2.5	2.8
5	0.9	1.2	1.6	1.7	1.3	1.6	1.8	2.1	1.1	1.5	1.7	1.9
2	0.4	0.6	0.6	0.8	0.6	0.8	1.0	1.2	0.5	0.7	0.8	1.0
1	0.2	0.3	0.3	0.5	0.4	0.5	0.6	0.7	0.3	0.4	0.4	0.5
Mean	4.96	5.51	6.09	6.46	5.60	6.08	6.62	7.27	5.28	5.79	6.36	6.88
S.D.	2.76	2.84	2.96	3.03	2.83	2.82	2.98	2.96	2.82	2.85	2.98	3.02
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 5
Information Test
R-105: Social Studies

24 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	23.4	23.6	23.9	23.9	22.4	22.4	23.6	23.6	23.1	23.4	23.8	23.8
98	22.9	23.2	23.7	23.8	21.7	21.7	23.2	23.2	22.4	22.8	23.6	23.6
95	21.7	22.3	23.3	23.4	20.1	20.5	22.1	22.4	21.2	21.6	22.8	23.1
90	20.5	21.2	22.4	22.7	18.5	19.0	20.9	21.2	19.6	20.3	21.8	22.2
85	19.4	20.2	21.7	22.1	17.2	17.8	19.9	20.3	18.4	19.2	20.9	21.4
80	18.4	19.3	21.0	21.5	16.1	16.8	19.0	19.5	17.4	18.2	20.1	20.6
75	17.6	18.5	20.3	20.9	15.1	15.8	18.1	18.7	16.4	17.2	19.4	19.9
70	16.7	17.6	19.7	20.2	14.2	15.0	17.2	17.9	15.5	16.3	18.5	19.1
60	15.0	16.0	18.2	18.9	12.7	13.6	15.8	16.3	13.8	14.7	17.0	17.6
50	13.2	14.5	16.8	17.5	11.3	12.1	14.4	15.0	12.2	13.3	15.6	16.1
40	11.5	13.0	15.3	15.9	9.9	10.7	12.8	13.5	10.6	11.7	14.0	14.6
30	9.8	11.1	13.6	14.2	8.5	9.4	11.3	11.9	9.1	10.1	12.2	12.9
25	8.8	10.2	12.6	13.3	7.9	8.6	10.4	11.1	8.2	9.3	11.3	12.1
20	7.8	9.2	11.5	12.3	7.1	7.8	9.6	10.2	7.4	8.4	10.3	11.1
15	6.7	8.1	10.0	11.2	6.3	7.0	8.6	9.1	6.5	7.4	9.2	10.0
10	5.6	6.7	8.5	9.7	5.2	5.9	7.3	7.9	5.4	6.2	7.8	8.5
5	4.1	4.8	6.3	7.4	3.9	4.6	5.8	6.3	4.0	4.7	6.0	6.7
2	2.9	3.1	4.3	5.3	2.6	3.2	4.4	4.6	2.8	3.2	4.4	4.8
1	2.2	2.1	3.1	4.2	1.9	2.4	3.2	3.6	1.9	2.2	3.2	3.8
Mean	13.14	14.17	16.08	16.75	11.57	12.27	14.20	14.73	12.35	13.22	15.13	15.70
S.D.	5.48	5.36	5.22	4.98	4.91	4.83	5.00	4.95	5.26	5.19	5.19	5.07
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 6
Information Test
R-106: Mathematics

23 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	18.2	20.5	22.4	22.7	15.7	18.2	21.5	21.6	17.3	19.5	22.2	22.5
98	16.9	19.1	21.9	22.5	14.4	17.1	20.3	20.7	15.8	18.3	21.4	22.0
95	14.4	17.2	20.5	21.6	12.8	15.2	18.5	18.7	13.5	16.2	19.7	20.6
90	12.4	15.1	19.0	20.1	10.9	13.4	16.2	16.1	11.7	14.2	17.9	18.8
85	11.1	13.7	17.5	19.0	9.8	12.0	14.2	14.2	10.5	12.9	16.1	17.2
80	10.2	12.5	16.2	17.8	9.0	11.1	12.5	12.6	9.6	11.8	14.6	15.6
75	9.4	11.7	15.0	16.7	8.3	10.2	11.1	11.2	8.8	10.9	13.2	14.0
70	8.6	10.8	13.7	15.4	7.6	9.3	10.0	9.9	8.1	10.1	11.9	12.7
60	7.4	9.1	11.5	12.9	6.6	7.7	7.9	8.0	7.0	8.4	9.7	10.1
50	6.5	7.7	9.5	10.6	5.7	6.4	6.6	6.6	6.1	7.0	7.8	8.2
40	5.5	6.4	7.6	8.6	4.8	5.3	5.4	5.5	5.1	5.8	6.4	6.6
30	4.6	5.3	6.3	6.9	4.0	4.3	4.4	4.5	4.3	4.8	5.2	5.4
25	4.1	4.8	5.5	6.1	3.6	3.8	4.0	4.0	3.8	4.2	4.6	4.8
20	3.7	4.2	4.8	5.3	3.1	3.3	3.5	3.5	3.4	3.7	4.0	4.1
15	3.1	3.6	4.1	4.5	2.7	2.8	2.9	2.9	2.9	3.1	3.4	3.5
10	2.6	2.8	3.4	3.6	2.1	2.2	2.3	2.3	2.3	2.5	2.7	2.8
5	1.7	1.9	2.2	2.6	1.5	1.6	1.6	1.6	1.6	1.7	1.8	1.9
2	0.9	1.1	1.3	1.5	0.7	0.8	0.8	0.7	0.8	0.9	0.9	0.9
1	0.6	0.6	0.7	0.8	0.5	0.5	0.5	0.3	0.5	0.5	0.6	0.5
Mean	7.03	8.43	10.35	11.32	6.17	7.19	7.94	7.99	6.60	7.81	9.12	9.58
S.D.	3.88	4.70	5.78	6.14	3.44	4.27	5.21	5.25	3.69	4.53	5.63	5.93
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 7
Information Test
R-107: Physical Science

18 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	17.0	17.2	17.7	17.9	15.3	15.2	16.0	16.5	16.5	16.6	17.4	17.8
98	16.3	16.6	17.4	17.7	14.5	14.3	15.3	16.0	15.7	16.0	16.9	17.5
95	15.1	15.6	16.6	17.3	13.3	13.1	14.0	14.8	14.3	14.6	15.8	16.5
90	13.9	14.3	15.5	16.4	12.0	11.8	12.4	13.2	13.1	13.2	14.4	15.2
85	13.1	13.2	14.7	15.5	10.9	10.8	11.3	12.0	12.2	12.1	13.3	14.2
80	12.3	12.3	13.9	14.8	10.1	9.9	10.2	10.9	11.3	11.2	12.3	13.1
75	11.5	11.5	13.1	14.0	9.4	9.2	9.4	9.9	10.6	10.5	11.5	12.2
70	10.9	10.9	12.3	13.2	8.8	8.5	8.7	9.1	9.9	9.8	10.6	11.3
60	9.7	9.7	11.0	11.8	7.7	7.4	7.5	7.8	8.7	8.6	9.2	9.7
50	8.5	8.7	9.7	10.5	6.6	6.3	6.3	6.7	7.6	7.5	7.9	8.3
40	7.4	7.6	8.4	9.0	5.7	5.4	5.4	5.7	6.5	6.4	6.6	7.0
30	6.4	6.6	7.1	7.6	4.8	4.5	4.6	4.7	5.5	5.4	5.5	5.8
25	5.7	6.0	6.4	6.9	4.4	4.0	4.1	4.2	4.9	4.8	5.0	5.2
20	5.1	5.4	5.8	6.2	3.9	3.6	3.6	3.7	4.3	4.3	4.4	4.5
15	4.3	4.7	5.0	5.4	3.3	3.1	3.1	3.2	3.7	3.6	3.8	3.9
10	3.4	3.8	4.2	4.4	2.7	2.6	2.5	2.6	3.0	3.0	3.1	3.2
5	2.5	2.7	3.0	3.4	1.8	1.7	1.6	1.8	2.1	2.1	2.1	2.3
2	1.6	1.6	1.9	2.3	1.0	0.9	0.9	1.0	1.2	1.2	1.2	1.4
1	1.0	0.9	1.2	1.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.9
Mean	8.66	8.84	9.74	10.40	7.02	6.77	6.94	7.29	7.84	7.80	8.32	8.78
S.D.	3.86	3.87	4.20	4.36	3.47	3.48	3.73	3.94	3.76	3.82	4.21	4.43
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 8
Information Test
R-108: Biological Science

11 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	10.4	10.8	10.8	10.8	9.8	10.4	10.5	10.5	10.2	10.6	10.7	10.7
98	10.1	10.5	10.7	10.6	9.3	10.2	10.2	10.2	9.8	10.4	10.5	10.5
95	9.3	10.0	10.2	10.3	8.4	9.4	9.5	9.5	9.0	9.8	10.0	10.0
90	8.6	9.4	9.6	9.7	7.6	8.7	8.8	8.8	8.2	9.1	9.3	9.4
85	8.0	9.0	9.2	9.3	7.0	8.2	8.3	8.3	7.6	8.6	8.8	8.9
80	7.5	8.5	8.8	8.9	6.4	7.7	7.8	7.8	7.1	8.2	8.4	8.4
75	7.1	8.2	8.5	8.6	5.9	7.2	7.4	7.4	6.6	7.8	8.0	8.0
70	6.7	7.9	8.2	8.2	5.5	6.9	7.0	7.0	6.1	7.4	7.6	7.7
60	6.0	7.2	7.5	7.6	4.9	6.2	6.3	6.3	5.4	6.7	6.9	7.0
50	5.3	6.6	6.8	6.9	4.3	5.5	5.7	5.7	4.7	6.0	6.2	6.3
40	4.6	5.9	6.2	6.3	3.7	4.9	5.1	5.0	4.1	5.3	5.6	5.6
30	3.9	5.1	5.5	5.6	3.2	4.2	4.4	4.4	3.5	4.6	4.9	4.9
25	3.5	4.7	5.1	5.2	2.9	3.8	4.1	4.0	3.1	4.2	4.5	4.5
20	3.1	4.2	4.7	4.7	2.6	3.4	3.7	3.7	2.8	3.8	4.1	4.0
15	2.7	3.7	4.2	4.1	2.2	3.0	3.3	3.2	2.4	3.3	3.7	3.6
10	2.2	3.0	3.6	3.5	1.8	2.5	2.8	2.7	1.9	2.7	3.0	3.0
5	1.5	2.2	2.6	2.6	1.2	1.8	2.0	2.0	1.4	1.9	2.2	2.3
2	0.8	1.4	1.6	1.8	0.7	1.0	1.4	1.4	0.7	1.2	1.5	1.6
1	0.5	0.8	1.0	1.4	0.5	0.7	0.8	0.9	0.5	0.8	0.9	1.0
Mean	5.32	6.38	6.70	6.77	4.49	5.56	5.75	5.73	4.90	5.97	6.21	6.22
S.D.	2.38	2.37	2.31	2.32	2.16	2.31	2.26	2.27	2.31	2.38	2.33	2.35
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 9
Information Test
R-109: Scientific Attitude

10 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	9.3	9.5	9.8	9.8	9.3	9.5	9.8	9.8	9.3	9.5	9.8	9.8
98	9.0	9.3	9.5	9.7	9.0	9.3	9.5	9.6	9.0	9.3	9.5	9.7
95	8.3	8.6	9.1	9.3	8.3	8.7	9.1	9.3	8.3	8.7	9.1	9.3
90	7.8	8.1	8.5	8.8	7.7	8.2	8.5	8.8	7.7	8.2	8.5	8.8
85	7.3	7.7	8.2	8.4	7.3	7.7	8.2	8.4	7.3	7.7	8.2	8.4
80	7.0	7.4	7.9	8.1	7.0	7.4	7.9	8.1	7.0	7.4	7.9	8.1
75	6.6	7.1	7.6	7.8	6.7	7.1	7.6	7.8	6.6	7.1	7.6	7.8
70	6.3	6.9	7.3	7.6	6.4	6.8	7.3	7.5	6.4	6.8	7.3	7.6
60	5.8	6.4	6.8	7.1	5.9	6.3	6.8	7.1	5.8	6.3	6.8	7.1
50	5.2	5.8	6.3	6.7	5.4	5.8	6.3	6.6	5.3	5.8	6.3	6.6
40	4.7	5.3	5.8	6.1	4.9	5.3	5.7	6.1	4.8	5.3	5.8	6.1
30	4.0	4.8	5.3	5.6	4.3	4.7	5.1	5.6	4.2	4.7	5.2	5.6
25	3.7	4.5	4.9	5.2	3.9	4.4	4.8	5.2	3.8	4.4	4.9	5.2
20	3.4	4.1	4.6	4.9	3.6	4.0	4.5	4.9	3.5	4.0	4.5	4.9
15	2.9	3.6	4.1	4.5	3.1	3.6	4.0	4.5	3.0	3.6	4.0	4.5
10	2.4	3.0	3.6	3.9	2.6	3.0	3.5	3.9	2.5	3.0	3.5	3.9
5	1.6	2.1	2.7	3.0	1.8	2.2	2.6	3.0	1.7	2.2	2.6	3.0
2	0.8	1.3	1.7	2.0	1.0	1.5	1.7	2.1	0.9	1.4	1.7	2.1
1	0.5	0.7	1.0	1.5	0.6	0.9	1.1	1.6	0.5	0.8	1.1	1.6
Mean	5.12	5.70	6.17	6.47	5.27	5.68	6.11	6.44	5.20	5.69	6.14	6.45
S.D.	2.02	1.94	1.92	1.87	1.94	1.94	1.94	1.86	1.98	1.94	1.93	1.86
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 10
Information Test
R-110: Aeronautics and Space

10 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	9.6	9.7	9.8	9.9	7.1	7.3	7.6	8.0	9.3	9.4	9.6	9.7
98	9.3	9.4	9.6	9.7	6.4	6.5	7.0	7.2	8.7	9.0	9.2	9.4
95	8.4	8.7	9.1	9.3	5.5	5.6	5.9	6.1	7.6	7.9	8.3	8.6
90	7.5	7.9	8.3	8.6	4.8	4.8	5.0	5.2	6.5	6.9	7.3	7.5
85	6.9	7.2	7.7	8.0	4.3	4.3	4.4	4.6	5.7	6.1	6.4	6.6
80	6.3	6.7	7.2	7.4	3.9	3.9	4.1	4.2	5.2	5.4	5.8	6.0
75	5.8	6.2	6.7	6.9	3.6	3.6	3.7	3.9	4.7	4.9	5.2	5.4
70	5.3	5.8	6.2	6.4	3.3	3.3	3.4	3.5	4.3	4.4	4.7	5.0
60	4.6	5.0	5.4	5.7	2.9	2.8	2.9	3.0	3.6	3.8	4.0	4.2
50	4.0	4.3	4.6	4.9	2.4	2.4	2.4	2.6	3.1	3.2	3.3	3.5
40	3.3	3.7	3.9	4.2	2.0	2.0	2.0	2.2	2.6	2.7	2.8	2.9
30	2.7	3.1	3.2	3.5	1.6	1.6	1.6	1.7	2.1	2.1	2.2	2.3
25	2.4	2.7	2.9	3.1	1.4	1.4	1.4	1.5	1.8	1.9	1.9	2.0
20	2.1	2.4	2.6	2.7	1.2	1.1	1.1	1.2	1.5	1.6	1.6	1.7
15	1.7	2.0	2.2	2.3	0.9	0.9	0.9	0.9	1.2	1.3	1.3	1.4
10	1.3	1.6	1.7	1.8	0.6	0.6	0.6	0.7	0.8	0.9	0.9	1.0
5	0.7	0.9	1.0	1.1	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5
2	0.3	0.4	0.5	0.6	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
1	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean	4.20	4.52	4.82	5.05	2.60	2.59	2.66	2.79	3.40	3.55	3.72	3.87
S.D.	2.33	2.35	2.43	2.48	1.62	1.62	1.72	1.77	2.16	2.24	2.36	2.42
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 11
Information Test
R-111: Electricity and Electronics

20 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	19.0	19.3	19.6	19.8	12.7	11.6	12.5	13.5	17.9	18.4	19.1	19.5
98	18.0	18.4	19.1	19.5	11.4	10.9	11.4	12.2	16.2	17.0	18.0	18.6
95	15.6	16.4	17.6	18.3	9.8	9.5	9.9	10.5	13.7	14.3	15.8	16.7
90	13.6	14.3	15.9	16.8	8.5	8.5	8.8	9.2	11.6	12.0	13.4	14.6
85	12.3	13.0	14.5	15.6	7.8	7.8	8.0	8.4	10.3	10.5	11.8	13.0
80	11.3	11.8	13.4	14.7	7.2	7.2	7.4	7.8	9.3	9.6	10.6	11.6
75	10.4	10.9	12.4	13.7	6.7	6.8	6.9	7.3	8.6	8.9	9.7	10.5
70	9.8	10.2	11.7	12.9	6.3	6.4	6.5	6.8	8.0	8.2	9.0	9.6
60	8.6	9.1	10.3	11.4	5.6	5.7	5.7	6.0	6.9	7.2	7.7	8.2
50	7.6	8.1	9.2	10.1	5.0	5.1	5.1	5.3	6.0	6.3	6.6	7.0
40	6.6	7.1	8.1	8.8	4.4	4.5	4.5	4.7	5.2	5.4	5.7	6.0
30	5.6	6.2	6.9	7.6	3.7	3.9	3.9	4.0	4.4	4.7	4.9	5.1
25	5.1	5.6	6.3	6.9	3.4	3.5	3.5	3.6	4.0	4.3	4.4	4.6
20	4.5	5.1	5.7	6.2	3.0	3.1	3.2	3.2	3.6	3.8	3.9	4.1
15	3.9	4.5	5.0	5.5	2.6	2.7	2.8	2.8	3.0	3.3	3.4	3.6
10	3.1	3.7	4.2	4.6	2.0	2.2	2.2	2.2	2.5	2.7	2.8	2.9
5	2.2	2.7	3.0	3.4	1.3	1.6	1.5	1.6	1.7	1.9	1.9	2.0
2	1.3	1.7	1.9	2.2	0.6	0.8	0.7	0.8	0.8	1.1	1.0	1.2
1	0.7	1.1	1.2	1.6	0.3	0.6	0.5	0.5	0.5	0.7	0.6	0.7
Mean	8.02	8.57	9.58	10.40	5.18	5.25	5.35	5.60	6.59	6.90	7.43	7.89
S.D.	4.02	4.04	4.35	4.53	2.58	2.42	2.56	2.76	3.66	3.72	4.14	4.42
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2.- Part 12
Information Test
R-112: Mechanics

19 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	17.6	18.1	18.6	18.8	13.5	13.9	14.7	15.4	17.0	17.5	18.3	18.5
98	17.1	17.5	18.3	18.5	12.7	13.2	13.9	14.7	16.2	16.9	17.8	18.2
95	16.0	16.7	17.6	18.1	11.5	12.2	12.8	13.3	14.9	15.9	16.8	17.3
90	14.9	15.9	16.8	17.4	10.5	11.1	11.8	12.3	13.6	14.6	15.6	16.3
85	14.2	15.2	16.2	16.8	9.7	10.3	11.1	11.7	12.8	13.6	14.8	15.4
80	13.6	14.5	15.6	16.3	9.1	9.8	10.4	11.1	12.0	12.9	14.0	14.7
75	13.1	14.0	15.2	15.9	8.6	9.3	9.9	10.5	11.3	12.2	13.3	13.9
70	12.6	13.5	14.7	15.5	8.2	8.8	9.4	10.1	10.7	11.7	12.6	13.2
60	11.7	12.6	13.9	14.7	7.4	8.0	8.6	9.1	9.5	10.4	11.4	12.0
50	10.7	11.9	13.1	13.8	6.7	7.2	7.7	8.3	8.4	9.4	10.3	10.8
40	9.8	11.0	12.2	12.9	6.0	6.5	6.9	7.5	7.4	8.2	9.1	9.5
30	8.7	10.1	11.3	12.0	5.2	5.7	6.1	6.5	6.4	7.1	7.8	8.3
25	8.1	9.5	10.8	11.5	4.8	5.3	5.7	6.1	5.8	6.6	7.2	7.7
20	7.4	8.8	10.2	10.7	4.4	4.9	5.3	5.6	5.3	6.0	6.5	6.9
15	6.6	7.9	9.4	9.9	3.8	4.4	4.7	5.0	4.7	5.3	5.8	6.2
10	5.6	6.9	8.3	8.9	3.2	3.7	4.1	4.2	3.9	4.5	5.0	5.3
5	4.1	5.4	6.5	7.3	2.3	2.8	3.2	3.2	2.9	3.4	3.9	4.0
2	2.8	3.5	4.5	5.3	1.4	1.9	2.2	2.2	1.8	2.3	2.7	2.7
1	2.0	2.5	3.3	3.8	0.7	1.4	1.6	1.6	1.0	1.6	2.0	1.9
Mean	10.48	11.58	12.75	13.40	6.77	7.33	7.84	8.32	8.62	9.44	10.25	10.74
S.D.	3.55	3.41	3.32	3.32	2.78	2.82	2.94	3.10	3.69	3.78	3.98	4.09
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 13
Information Test
R-113: Farming

12 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	11.7	11.8	11.9	11.9	11.5	11.7	11.7	11.8	11.7	11.8	11.8	11.9
98	11.5	11.6	11.8	11.8	11.3	11.4	11.5	11.5	11.4	11.5	11.7	11.7
95	11.1	11.2	11.4	11.5	10.5	10.8	11.0	11.2	10.9	11.1	11.3	11.4
90	10.4	10.6	10.9	11.1	9.9	10.2	10.4	10.6	10.2	10.4	10.7	10.8
85	9.9	10.2	10.5	10.6	9.3	9.6	10.0	10.2	9.6	10.0	10.3	10.4
80	9.4	9.8	10.2	10.3	8.9	9.2	9.9	9.8	9.2	9.6	9.9	10.1
75	9.1	9.5	9.9	10.1	8.5	8.9	9.2	9.5	8.8	9.2	9.6	9.8
70	8.7	9.2	9.6	9.8	8.0	8.5	8.9	9.1	8.4	8.9	9.3	9.5
60	8.0	8.6	9.0	9.3	7.3	7.8	8.3	8.5	7.6	8.2	8.7	8.9
50	7.3	8.0	8.5	8.8	6.6	7.1	7.6	7.8	6.9	7.6	8.1	8.3
40	6.6	7.3	7.9	8.2	5.8	6.4	6.9	7.2	6.2	6.9	7.4	7.7
30	5.8	6.6	7.2	7.6	5.0	5.6	6.1	6.4	5.4	6.1	6.6	7.0
25	5.4	6.1	6.8	7.2	4.6	5.1	5.7	5.9	4.9	5.6	6.2	6.5
20	4.8	5.6	6.3	6.7	4.1	4.7	5.1	5.5	4.4	5.1	5.7	6.0
15	4.2	5.0	5.7	6.1	3.6	4.1	4.5	4.8	3.9	4.5	5.0	5.4
10	3.5	4.2	4.9	5.5	2.9	3.5	3.8	4.0	3.2	3.8	4.2	4.6
5	2.5	3.3	3.7	4.3	1.9	2.4	2.7	3.0	2.2	2.7	3.1	3.5
2	1.6	1.9	2.3	2.9	1.0	1.5	1.7	1.8	1.3	1.7	1.9	2.2
1	0.9	1.2	1.6	1.9	0.5	0.8	0.9	1.0	0.7	1.0	1.0	1.3
Mean	7.12	7.68	8.15	8.45	6.46	6.94	7.33	7.57	6.79	7.31	7.73	7.99
S.D.	2.56	2.43	2.34	2.21	2.61	2.53	2.51	2.48	2.60	2.51	2.46	2.40
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 14
Information Test
R-114: Home Economics

21 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	14.2	15.1	15.4	16.7	18.8	18.9	19.4	20.0	18.1	18.3	19.0	19.4
98	13.4	14.3	14.9	15.6	18.0	18.3	19.0	19.3	17.1	17.6	18.3	18.7
95	12.2	13.0	13.7	14.3	16.7	17.3	18.1	18.3	15.6	16.4	17.1	17.5
90	11.1	11.8	12.6	13.0	15.5	16.3	17.1	17.3	14.2	15.2	15.9	16.4
85	10.3	11.0	11.8	12.2	14.7	15.6	16.4	16.8	13.3	14.3	15.0	15.5
80	9.7	10.4	11.2	11.7	14.1	15.1	15.8	16.2	12.4	13.4	14.2	14.8
75	9.2	9.9	10.6	11.1	13.5	14.6	15.3	15.7	11.7	12.7	13.4	14.1
70	8.7	9.5	10.2	10.6	13.0	14.0	14.7	15.2	11.1	12.1	12.8	13.5
60	8.0	8.7	9.3	9.7	12.0	13.1	13.8	14.4	10.0	10.9	11.6	12.3
50	7.2	7.9	8.5	9.0	11.1	12.2	12.9	12.9	9.0	9.8	10.5	11.3
40	6.5	7.2	7.8	8.2	10.2	11.3	11.9	12.7	8.1	8.8	9.6	10.2
30	5.8	6.4	7.0	7.4	9.3	10.2	10.9	11.8	7.1	7.8	8.5	9.1
25	5.4	6.0	6.6	6.9	8.8	9.7	10.4	11.2	6.6	7.3	8.0	8.5
20	5.0	5.5	6.1	6.4	8.3	9.1	9.8	10.7	6.0	6.7	7.4	7.9
15	4.5	5.0	5.7	5.9	7.6	8.5	9.2	10.0	5.4	6.0	6.8	7.2
10	3.8	4.3	5.0	5.2	6.8	7.6	8.3	9.0	4.7	5.3	6.0	6.3
5	2.9	3.3	4.0	4.4	5.6	6.4	7.2	7.7	3.6	4.1	4.8	5.2
2	2.0	2.4	3.0	3.5	4.2	5.0	5.9	6.5	2.5	2.9	3.7	4.1
1	1.6	1.8	2.3	2.6	3.2	4.1	4.7	5.7	1.9	2.3	2.9	3.5
Mean	7.36	8.00	8.67	9.08	11.14	12.06	12.75	13.37	9.26	10.04	10.74	11.32
S.D.	2.78	2.90	2.91	3.03	3.39	3.34	3.32	3.19	3.63	3.73	3.73	3.78
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 15
Information Test
R-115: Sports

14 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	13.3	13.4	13.5	13.7	10.5	11.3	11.7	11.8	12.8	13.2	13.3	13.4
98	12.8	13.1	13.3	13.4	10.0	10.6	11.1	11.3	12.3	12.7	12.9	13.1
95	12.0	12.4	12.7	13.0	9.0	9.5	10.0	10.3	11.2	11.7	12.1	12.3
90	11.1	11.6	12.1	12.3	8.0	8.5	9.0	9.4	10.1	10.7	11.2	11.5
85	10.4	11.0	11.5	11.9	7.3	7.9	8.3	8.8	9.2	9.9	10.4	10.8
80	9.9	10.5	11.0	11.4	6.8	7.4	7.8	8.3	8.5	9.2	9.8	10.2
75	9.3	10.0	10.6	11.1	6.3	7.0	7.3	7.8	7.9	8.6	9.2	9.6
70	8.8	9.6	10.2	10.7	5.9	6.5	7.0	7.4	7.4	8.1	8.6	9.2
60	7.9	8.7	9.4	9.9	5.2	5.8	6.3	6.7	6.4	7.1	7.7	8.2
50	7.0	7.8	8.5	9.1	4.6	5.2	5.6	6.0	5.6	6.3	6.8	7.4
40	6.1	6.9	7.6	8.3	4.0	4.6	5.0	5.4	4.8	5.4	6.0	6.5
30	5.2	5.9	6.7	7.5	3.4	3.9	4.2	4.7	4.1	4.7	5.2	5.6
25	4.8	5.4	6.2	6.9	3.0	3.6	3.8	4.3	3.7	4.3	4.7	5.2
20	4.3	4.9	5.7	6.4	2.7	3.2	3.4	3.9	3.2	3.8	4.2	4.7
15	3.7	4.3	5.0	5.7	2.3	2.7	3.0	3.4	2.8	3.3	3.7	4.1
10	3.0	3.6	4.2	4.9	1.8	2.2	2.5	2.8	2.2	2.7	3.0	3.5
5	2.0	2.7	3.2	3.8	1.2	1.5	1.7	1.9	1.6	1.9	2.2	2.5
2	1.1	1.7	2.2	2.7	0.5	0.7	0.9	1.1	0.7	1.0	1.3	1.5
1	0.6	1.1	1.4	1.9	0.3	0.4	0.6	0.7	0.4	0.6	0.8	0.9
Mean	7.02	7.68	8.30	8.86	4.76	5.30	5.68	6.07	5.89	6.49	6.97	7.40
S.D.	3.02	2.99	2.91	2.79	2.34	2.43	2.47	2.50	2.92	2.97	3.00	2.99
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 16
Information Test
R-131: Art

12 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	11.0	11.3	11.6	11.7	11.1	11.4	11.5	11.7	11.1	11.3	11.6	11.7
98	10.4	10.7	11.2	11.4	10.5	10.9	11.2	11.5	10.4	10.8	11.2	11.4
95	9.5	9.8	10.2	10.6	9.7	10.1	10.4	10.9	9.6	10.0	10.3	10.8
90	8.7	9.0	9.4	9.8	8.9	9.2	9.7	10.2	8.8	9.1	9.5	10.1
85	8.1	8.4	8.9	9.3	8.3	8.7	9.2	9.7	8.2	8.5	9.0	9.5
80	7.5	8.0	8.4	8.8	7.8	8.2	8.8	9.2	7.7	8.1	8.6	9.0
75	7.1	7.6	8.1	8.4	7.4	7.8	8.3	8.8	7.2	7.7	8.2	8.6
70	6.7	7.2	7.7	8.0	7.0	7.4	7.9	8.4	6.8	7.3	7.8	8.2
60	5.9	6.4	7.0	7.3	6.1	6.7	7.2	7.7	6.0	6.6	7.1	7.5
50	5.2	5.7	6.3	6.6	5.4	6.0	6.5	7.0	5.3	5.9	6.4	6.8
40	4.4	5.0	5.7	5.9	4.7	5.3	5.8	6.3	4.6	5.1	5.7	6.1
30	3.7	4.2	4.9	5.1	3.9	4.6	5.0	5.5	3.8	4.4	5.0	5.3
25	3.3	3.8	4.5	4.7	3.5	4.1	4.6	5.0	3.4	4.0	4.6	4.8
20	2.9	3.4	4.0	4.2	3.0	3.7	4.1	4.5	3.0	3.5	4.1	4.3
15	2.5	2.9	3.5	3.7	2.6	3.2	3.6	3.9	2.5	3.0	3.6	3.8
10	1.9	2.4	2.8	3.0	2.0	2.6	3.0	3.3	2.0	2.5	2.9	3.1
5	1.3	1.6	2.0	2.1	1.4	1.7	2.1	2.4	1.3	1.7	2.0	2.2
2	0.6	0.8	1.2	1.3	0.6	0.9	1.3	1.4	0.6	0.9	1.2	1.3
1	0.4	0.5	0.6	0.7	0.4	0.5	0.7	0.8	0.4	0.5	0.7	0.8
Mean	5.24	5.70	6.25	6.52	5.45	5.96	6.43	6.84	5.34	5.83	6.34	6.68
S.D.	2.52	2.50	2.48	2.55	2.56	2.51	2.51	2.58	2.54	2.51	2.50	2.57
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2., Part 17
Information Test
R-132: Law

9 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	8.3	8.5	8.8	8.9	7.8	7.9	8.4	8.7	8.2	8.3	8.6	8.8
98	7.9	8.2	8.5	8.8	7.3	7.4	8.0	8.5	7.6	7.9	8.4	8.7
95	7.2	7.5	8.1	8.4	6.4	6.8	7.3	8.0	6.9	7.2	7.7	8.3
90	6.4	7.0	7.4	8.0	5.8	6.2	6.6	7.3	6.2	6.6	7.1	7.7
85	6.0	6.5	7.0	7.6	5.4	5.7	6.2	6.8	5.7	6.2	6.6	7.3
80	5.6	6.2	6.6	7.2	5.1	5.3	5.8	6.4	5.3	5.8	6.3	6.9
75	5.3	5.9	6.3	7.0	4.8	5.1	5.5	6.1	5.1	5.5	6.0	6.5
70	5.0	5.6	6.1	6.7	4.5	4.8	5.3	5.8	4.8	5.2	5.7	6.3
60	4.5	5.1	5.5	6.2	4.1	4.4	4.8	5.3	4.3	4.7	5.2	5.7
50	4.1	4.6	5.1	5.7	3.7	3.9	4.3	4.8	3.9	4.2	4.7	5.2
40	3.6	4.1	4.6	5.2	3.2	3.5	3.9	4.3	3.4	3.8	4.2	4.7
30	3.1	3.6	4.1	4.6	2.8	3.1	3.4	3.8	2.9	3.3	3.7	4.2
25	2.8	3.3	3.8	4.4	2.6	2.8	3.2	3.6	2.7	3.0	3.5	3.9
20	2.5	3.0	3.6	4.0	2.3	2.6	2.9	3.3	2.4	2.7	3.2	3.6
15	2.2	2.6	3.2	3.7	2.0	2.3	2.6	2.9	2.1	2.5	2.8	3.2
10	1.8	2.2	2.7	3.2	1.6	1.9	2.2	2.6	1.7	2.0	2.5	2.8
5	1.2	1.6	2.0	2.6	1.1	1.5	1.7	1.9	1.1	1.6	1.8	2.1
2	0.7	0.8	1.3	1.7	0.6	0.8	1.0	1.3	0.6	0.8	1.1	1.5
1	0.5	0.5	0.9	1.2	0.4	0.6	0.7	0.8	0.4	0.6	0.8	1.0
Mean	4.10	4.58	5.07	5.61	3.71	3.99	4.39	4.85	3.90	4.28	4.72	5.21
S.D.	1.77	1.80	1.77	1.80	1.60	1.59	1.67	1.78	1.70	1.72	1.75	1.83
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 18
Information Test
R-133: Health

9 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	8.8	8.9	8.9	8.9	8.9	8.9	8.9	9.0	8.8	8.9	8.9	8.9
98	8.6	8.8	8.8	8.9	8.7	8.9	8.9	8.9	8.7	8.8	8.9	8.9
95	8.2	8.5	8.6	8.7	8.4	8.6	8.7	8.8	8.3	8.6	8.7	8.7
90	7.5	8.1	8.2	8.4	7.9	8.3	8.5	8.5	7.8	8.2	8.4	8.5
85	7.1	7.6	7.9	8.1	7.5	8.0	8.2	8.3	7.3	7.8	8.1	8.2
80	6.8	7.3	7.6	7.8	7.1	7.7	7.9	8.1	7.0	7.5	7.8	8.0
75	6.4	7.0	7.3	7.6	6.8	7.4	7.7	7.8	6.6	7.2	7.5	7.7
70	6.1	6.7	7.1	7.3	6.5	7.2	7.4	7.6	6.3	7.0	7.2	7.5
60	5.4	6.2	6.6	6.9	5.9	6.7	6.9	7.2	5.7	6.4	6.8	7.0
50	4.8	5.6	6.1	6.4	5.4	6.1	6.5	6.8	5.1	5.9	6.3	6.6
40	4.2	5.0	5.5	5.9	4.8	5.6	5.9	6.4	4.5	5.3	5.7	6.1
30	3.5	4.3	4.9	5.3	4.2	5.0	5.4	5.8	3.8	4.7	5.1	5.6
25	3.1	3.9	4.6	4.9	3.8	4.7	5.0	5.5	3.5	4.3	4.8	5.2
20	2.8	3.5	4.1	4.5	3.4	4.2	4.7	5.1	3.1	3.8	4.4	4.8
15	2.3	3.0	3.6	4.0	2.9	3.7	4.2	4.6	2.6	3.3	3.9	4.3
10	1.8	2.4	3.0	3.4	2.4	3.1	3.6	4.0	2.0	2.7	3.3	3.7
5	1.2	1.7	2.2	2.6	1.6	2.2	2.8	3.1	1.4	1.9	2.5	2.8
2	0.6	0.8	1.2	1.5	0.8	1.3	1.7	2.2	0.7	1.0	1.4	1.8
1	0.4	0.5	0.6	0.9	0.5	0.8	1.0	1.6	0.5	0.6	0.8	1.1
Mean	4.75	5.40	5.83	6.11	5.26	5.90	6.23	6.52	5.00	5.66	6.03	6.33
S.D.	2.12	2.09	1.96	1.90	2.04	1.96	1.86	1.75	2.09	2.04	1.92	1.84
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 19
Information Test
R-134: Engineering

6 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	5.3	5.4	5.5	5.5	5.1	5.2	5.2	5.3	5.2	5.3	5.4	5.5
90	4.5	4.6	5.0	5.1	4.0	4.2	4.3	4.5	4.3	4.4	4.7	4.8
75	3.8	4.0	4.3	4.4	3.2	3.4	3.6	3.8	3.5	3.8	4.0	4.1
50	2.8	3.1	3.5	3.7	2.2	2.4	2.7	2.9	2.5	2.8	3.1	3.3
25	1.8	2.1	2.6	2.8	1.3	1.5	1.7	1.9	1.6	1.8	2.1	2.3
10	1.0	1.3	1.7	1.9	0.6	0.8	0.9	1.1	0.7	0.9	1.2	1.5
2	0.3	0.4	0.6	0.7	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.5
Mean	2.79	3.05	3.39	3.54	2.27	2.47	2.66	2.86	2.53	2.76	3.02	3.19
S.D.	1.29	1.26	1.22	1.18	1.27	1.27	1.27	1.25	1.31	1.30	1.30	1.26
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 20
Information Test
R-135: Architecture

6 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	5.2	5.5	5.6	5.7	5.3	5.3	5.4	5.5	5.2	5.4	5.5	5.6
90	4.0	4.4	4.6	4.9	4.0	4.2	4.4	4.5	4.0	4.3	4.5	4.7
75	3.1	3.4	3.7	3.9	3.1	3.3	3.5	3.7	3.1	3.4	3.6	3.8
50	2.1	2.4	2.6	2.8	2.1	2.4	2.6	2.7	2.1	2.4	2.6	2.8
25	1.3	1.5	1.7	1.8	1.3	1.6	1.7	1.8	1.3	1.5	1.7	1.8
10	0.7	0.7	0.9	1.0	0.7	0.8	0.9	1.0	0.7	0.8	0.9	1.0
2	0.2	0.2	0.3	0.5	0.2	0.2	0.4	0.5	0.2	0.2	0.3	0.5
Mean	2.23	2.49	2.71	2.89	2.25	2.47	2.63	2.78	2.24	2.48	2.67	2.84
S.D.	1.25	1.36	1.37	1.38	1.23	1.26	1.27	1.30	1.24	1.31	1.32	1.34
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 21
Information Test
R-136: Journalism

3 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	2.9	2.9	3.0	3.0	2.9	2.9	2.9	3.0	2.9	2.9	3.0	3.0
90	2.7	2.7	2.8	2.9	2.6	2.7	2.8	2.9	2.7	2.7	2.8	2.9
75	2.1	2.3	2.5	2.7	2.1	2.3	2.6	2.7	2.1	2.3	2.5	2.7
50	1.3	1.5	1.8	2.1	1.3	1.6	1.8	2.1	1.3	1.6	1.8	2.1
25	0.7	0.8	1.0	1.3	0.6	0.8	1.0	1.4	0.6	0.8	1.0	1.3
10	0.2	0.3	0.4	0.6	0.3	0.3	0.4	0.7	0.2	0.3	0.4	0.6
2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Mean	1.37	1.54	1.78	1.99	1.38	1.55	1.77	2.01	1.38	1.54	1.78	2.00
S.D.	0.98	0.97	0.97	0.93	0.95	0.97	0.98	0.92	0.96	0.97	0.98	0.92
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 22
Information Test
R-137: Foreign Travel

5 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	4.8	4.9	4.9	4.9	4.7	4.7	4.8	4.9	4.7	4.8	4.9	4.9
90	4.2	4.4	4.5	4.7	3.8	4.0	4.2	4.4	4.0	4.2	4.4	4.6
75	3.3	3.6	3.8	4.0	2.9	3.1	3.3	3.6	3.1	3.4	3.6	3.8
50	2.3	2.7	2.9	3.0	1.9	2.1	2.2	2.5	2.1	2.4	2.5	2.8
25	1.4	1.6	1.8	1.9	1.0	1.2	1.2	1.5	1.1	1.4	1.5	1.7
10	0.6	0.8	0.9	1.0	0.4	0.5	0.5	0.7	0.5	0.6	0.7	0.8
2	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Mean	2.35	2.62	2.80	2.96	2.00	2.18	2.29	2.53	2.17	2.40	2.54	2.73
S.D.	1.30	1.32	1.33	1.36	1.28	1.26	1.35	1.38	1.30	1.31	1.36	1.39
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 23
Information Test
R-138: Military

7 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	5.3	5.7	6.1	6.2	4.3	4.5	4.9	5.2	5.0	5.3	5.6	5.8
90	4.1	4.4	4.7	5.0	3.2	3.4	3.6	4.0	3.7	4.0	4.3	4.5
75	3.1	3.3	3.7	4.0	2.4	2.5	2.8	3.1	2.7	2.9	3.3	3.5
50	2.0	2.2	2.6	2.9	1.5	1.7	1.9	2.1	1.7	1.9	2.2	2.4
25	1.0	1.3	1.6	1.8	0.7	0.9	1.0	1.2	0.9	1.0	1.2	1.5
10	0.4	0.6	0.7	1.0	0.3	0.4	0.5	0.6	0.4	0.5	0.6	0.7
2	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Mean	2.11	2.37	2.68	2.95	1.60	1.77	1.95	2.19	1.86	2.07	2.31	2.56
S.D.	1.39	1.46	1.51	1.48	1.16	1.18	1.22	1.27	1.30	1.36	1.42	1.43
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 24
Information Test
R-139: Accounting, Business, Sales

10 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	8.2	8.7	9.1	9.5	8.1	8.5	9.2	9.5	8.2	8.6	9.1	9.5
98	7.7	8.2	8.5	9.2	7.5	8.1	8.6	9.3	7.6	8.2	8.6	9.3
95	7.0	7.4	8.0	8.6	6.8	7.3	8.0	8.6	6.9	7.3	8.0	8.6
90	6.3	6.7	7.3	8.0	6.1	6.5	7.3	8.1	6.2	6.6	7.3	8.0
85	5.8	6.2	6.8	7.5	5.6	6.1	6.9	7.6	5.7	6.2	6.8	7.5
80	5.4	5.8	6.4	7.2	5.2	5.7	6.4	7.2	5.3	5.8	6.4	7.2
75	5.0	5.4	6.1	6.8	4.9	5.4	6.1	6.9	5.0	5.4	6.1	6.9
70	4.7	5.2	5.7	6.5	4.6	5.1	5.8	6.6	4.7	5.1	5.8	6.5
60	4.2	4.7	5.2	6.0	4.1	4.5	5.2	6.0	4.2	4.6	5.2	6.0
50	3.7	4.2	4.7	5.5	3.7	4.0	4.6	5.5	3.7	4.1	4.7	5.5
40	3.2	3.7	4.2	4.9	3.2	3.6	4.1	4.9	3.2	3.6	4.2	4.9
30	2.7	3.1	3.7	4.3	2.7	3.0	3.6	4.2	2.7	3.1	3.6	4.3
25	2.4	2.8	3.4	4.0	2.4	2.8	3.3	3.9	2.4	2.8	3.3	3.9
20	2.1	2.5	3.1	3.6	2.1	2.5	3.0	3.6	2.1	2.5	3.0	3.6
15	1.8	2.1	2.7	3.2	1.8	2.1	2.6	3.1	1.8	2.1	2.7	3.1
10	1.4	1.7	2.2	2.7	1.5	1.7	2.2	2.6	1.5	1.7	2.2	2.6
5	0.8	1.1	1.5	1.9	0.8	1.0	1.6	1.8	0.8	1.1	1.6	1.9
2	0.5	0.6	0.8	1.1	0.4	0.5	0.9	1.0	0.5	0.6	0.8	1.0
1	0.2	0.4	0.5	0.6	0.2	0.3	0.6	0.6	0.2	0.3	0.6	0.6
Mean	3.78	4.19	4.72	5.38	3.71	4.08	4.71	5.37	3.74	4.14	4.71	5.37
S.D.	1.82	1.87	1.90	2.00	1.76	1.85	1.94	2.05	1.79	1.86	1.92	2.03
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 25
Information Test
R-140: Practical Knowledge

4 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
90	3.8	3.8	3.9	3.9	3.8	3.8	3.9	3.9	3.8	3.8	3.9	3.9
75	3.5	3.6	3.7	3.7	3.5	3.6	3.7	3.7	3.5	3.6	3.7	3.7
50	2.8	3.0	3.3	3.5	2.9	3.1	3.2	3.4	2.9	3.1	3.3	3.4
25	1.9	2.3	2.6	2.8	2.2	2.5	2.7	2.8	2.0	2.4	2.7	2.8
10	1.0	1.4	1.8	2.0	1.5	1.7	1.9	2.2	1.2	1.6	1.9	2.1
2	0.2	0.4	0.6	0.8	0.5	0.6	0.9	1.1	0.3	0.5	0.8	1.0
Mean	2.65	2.90	3.16	3.30	2.82	3.00	3.16	3.30	2.73	2.95	3.16	3.30
S.D.	1.10	1.03	0.90	0.86	0.96	0.91	0.83	0.79	1.03	0.97	0.87	0.82
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 26
Information Test
R-141: Clerical

3 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	2.8	2.9	3.0	3.0	2.9	3.0	3.0	3.0	2.9	2.9	3.0	3.0
90	2.3	2.6	2.8	2.8	2.6	2.8	2.9	2.9	2.4	2.7	2.9	2.9
75	1.7	2.1	2.5	2.7	2.1	2.5	2.8	2.8	1.9	2.3	2.7	2.8
50	1.1	1.4	1.9	2.1	1.4	1.9	2.5	2.6	1.2	1.6	2.2	2.5
25	0.6	0.8	1.2	1.5	0.8	1.2	1.8	2.1	0.7	0.9	1.5	1.8
10	0.3	0.4	0.7	0.8	0.4	0.6	1.2	1.6	0.3	0.5	0.8	1.0
2	0.1	0.1	0.2	0.3	0.1	0.2	0.5	0.6	0.1	0.1	0.3	0.5
Mean	1.16	1.44	1.85	2.07	1.42	1.87	2.37	2.56	1.29	1.65	2.11	2.32
S.D.	0.78	0.84	0.86	0.84	0.86	0.87	0.76	0.68	0.83	0.88	0.85	0.80
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 27
Information Test
R-142: Bible
15 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	14.0	14.2	14.6	14.7	14.1	14.3	14.6	14.7	14.0	14.3	14.6	14.7
98	13.3	13.6	14.2	14.3	13.4	13.8	14.2	14.4	13.3	13.7	14.2	14.4
95	12.0	12.6	13.2	13.3	12.2	12.6	13.1	13.5	12.1	12.6	13.2	13.4
90	10.7	11.4	11.9	12.2	10.8	11.4	12.0	12.5	10.8	11.4	11.9	12.4
85	9.6	10.4	11.0	11.4	9.8	10.5	11.1	11.5	9.8	10.4	11.1	11.4
80	8.9	9.6	10.3	10.7	9.0	9.8	10.3	10.9	9.0	9.7	10.3	10.8
75	8.3	8.8	9.5	10.1	8.3	9.2	9.6	10.2	8.3	9.0	9.6	10.1
70	7.6	8.2	8.9	9.4	7.8	8.6	9.0	9.5	7.7	8.4	8.9	9.5
60	6.5	7.1	7.8	8.3	6.8	7.5	7.9	8.4	6.7	7.3	7.8	8.4
50	5.6	6.1	6.8	7.3	5.9	6.5	6.9	7.5	5.8	6.3	6.9	7.4
40	4.9	5.3	5.9	6.3	5.2	5.7	6.0	6.5	5.0	5.5	6.0	6.4
30	4.1	4.4	5.0	5.3	4.4	4.8	5.2	5.6	4.2	4.6	5.1	5.5
25	3.7	4.0	4.6	4.8	4.0	4.4	4.7	5.2	3.8	4.2	4.7	5.0
20	3.3	3.6	4.1	4.4	3.6	4.0	4.3	4.7	3.4	3.8	4.2	4.6
15	2.8	3.1	3.6	3.8	3.1	3.5	3.8	4.1	2.9	3.3	3.7	4.0
10	2.3	2.6	3.0	3.2	2.6	2.9	3.2	3.5	2.4	2.7	3.1	3.4
5	1.6	1.8	2.2	2.5	1.8	2.0	2.4	2.7	1.7	1.9	2.3	2.6
2	0.9	1.0	1.4	1.7	0.9	1.3	1.6	1.8	0.9	1.1	1.5	1.8
1	0.5	0.5	0.8	1.2	0.5	0.8	1.1	1.4	0.5	0.7	0.9	1.3
Mean	6.11	6.55	7.15	7.51	6.32	6.87	7.26	7.73	6.21	6.71	7.20	7.62
S.D.	3.16	3.27	3.33	3.34	3.12	3.21	3.27	3.32	3.14	3.24	3.30	3.33
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 28
Information Test
R-143: Colors

3 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	2.8	2.8	2.8	2.9	2.9	2.9	3.0	3.0	2.9	2.9	2.9	2.9
90	2.3	2.3	2.4	2.5	2.6	2.7	2.8	2.8	2.4	2.5	2.7	2.7
75	1.6	1.7	1.8	2.0	2.1	2.3	2.5	2.6	1.9	2.0	2.2	2.3
50	1.0	1.2	1.1	1.2	1.3	1.5	1.7	1.9	1.2	1.3	1.4	1.6
25	0.4	0.5	0.5	0.5	0.7	0.8	1.0	1.1	0.6	0.6	0.7	0.8
10	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.2	0.2	0.3	0.3
2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Mean	1.02	1.09	1.16	1.24	1.41	1.54	1.71	1.86	1.22	1.32	1.44	1.56
S.D.	0.83	0.85	0.86	0.91	0.90	0.92	0.94	0.94	0.89	0.91	0.94	0.98
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 29
Information Test
R-144: Etiquette

2 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0
90	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.7	1.8	1.8	1.8
75	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.4	1.5	1.5	1.6
50	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.3	0.9	1.0	1.0	1.1
25	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.4	0.4	0.5	0.6
10	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3
2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Mean	0.74	0.82	0.92	1.01	1.00	1.10	1.15	1.23	0.87	0.96	1.04	1.12
S.D.	0.68	0.68	0.68	0.68	0.73	0.72	0.73	0.71	0.72	0.72	0.71	0.70
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 30
Information Test
R-145: Hunting

5 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	4.5	4.7	4.7	4.8	3.3	3.3	3.3	3.3	4.3	4.4	4.5	4.6
90	3.6	3.9	4.0	4.2	2.3	2.4	2.4	2.4	3.2	3.3	3.4	3.6
75	2.8	3.1	3.2	3.4	1.6	1.7	1.8	1.8	2.3	2.5	2.6	2.6
50	1.9	2.2	2.4	2.5	0.9	1.0	1.1	1.1	1.3	1.5	1.6	1.6
25	1.0	1.3	1.4	1.5	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.8
10	0.4	0.6	0.6	0.7	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
2	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Mean	1.96	2.18	2.34	2.45	1.02	1.09	1.15	1.14	1.49	1.64	1.73	1.77
S.D.	1.21	1.23	1.24	1.27	0.90	0.91	0.91	0.91	1.17	1.21	1.24	1.28
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 31
Information Test
R-146: Fishing

5 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	4.3	4.5	4.6	4.7	3.2	3.2	3.3	3.4	4.0	4.2	4.4	4.4
90	3.2	3.4	3.7	3.7	2.3	2.3	2.3	2.4	2.8	3.0	3.2	3.2
75	2.3	2.5	2.8	2.9	1.5	1.6	1.7	1.7	2.0	2.1	2.2	2.3
50	1.4	1.6	1.8	1.9	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.3
25	0.7	0.7	0.9	0.9	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6
10	0.3	0.3	0.4	0.4	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	1.55	1.70	1.88	1.94	0.96	0.99	1.05	1.06	1.26	1.34	1.46	1.48
S.D.	1.18	1.24	1.26	1.29	0.89	0.89	0.91	0.94	1.09	1.14	1.17	1.20
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 32
Information Test
R-147: Outdoor Activities (other)

9 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	8.2	8.4	8.5	8.5	7.6	8.0	8.1	8.1	8.0	8.2	8.4	8.4
90	6.9	7.3	7.4	7.6	6.3	6.5	6.8	6.9	6.6	7.0	7.2	7.3
75	5.8	6.2	6.4	6.6	5.1	5.4	5.7	5.9	5.4	5.9	6.1	6.2
50	4.4	4.9	5.2	5.4	3.8	4.2	4.4	4.6	4.1	4.5	4.8	5.0
25	2.8	3.5	3.9	4.2	2.5	2.8	3.1	3.3	2.7	3.1	3.5	3.7
10	1.6	2.1	2.7	2.8	1.4	1.7	1.9	2.1	1.5	1.8	2.2	2.4
2	0.4	0.6	1.1	1.2	0.4	0.6	0.7	0.8	0.4	0.6	0.8	0.9
Mean	4.32	4.77	5.11	5.31	3.83	4.16	4.40	4.57	4.07	4.46	4.75	4.92
S.D.	1.97	1.92	1.81	1.78	1.83	1.83	1.81	1.78	1.92	1.90	1.84	1.82
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 33
Information Test
R-148: Photography

3 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	2.5	2.5	2.7	2.7	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
90	2.2	2.3	2.3	2.4	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.3
75	1.6	1.8	2.0	2.0	1.7	1.9	2.0	2.0	1.7	1.8	2.0	2.0
50	1.0	1.2	1.3	1.5	1.1	1.3	1.4	1.5	1.1	1.2	1.4	1.5
25	0.5	0.7	0.8	0.9	0.6	0.8	0.9	0.9	0.6	0.7	0.8	0.9
10	0.2	0.3	0.4	0.5	0.3	0.4	0.5	0.5	0.2	0.3	0.5	0.5
2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Mean	1.06	1.19	1.34	1.42	1.12	1.26	1.37	1.42	1.09	1.23	1.36	1.42
S.D.	0.76	0.74	0.73	0.73	0.70	0.67	0.65	0.64	0.73	0.71	0.69	0.68
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 34
Information Test
R-149: Games (sedentary)

5 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	4.6	4.7	4.8	4.8	4.3	4.4	4.3	4.4	4.5	4.6	4.6	4.7
90	4.0	4.1	4.1	4.2	3.3	3.4	3.4	3.4	3.6	3.8	3.8	3.8
75	3.1	3.3	3.3	3.3	2.5	2.6	2.6	2.7	2.8	3.0	3.0	3.0
50	2.2	2.3	2.4	2.4	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.1
25	1.4	1.5	1.7	1.7	1.2	1.2	1.3	1.4	1.3	1.4	1.5	1.6
10	0.7	0.8	0.9	0.9	0.6	0.6	0.7	0.8	0.6	0.7	0.8	0.8
2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Mean	2.22	2.36	2.48	2.48	1.92	1.97	2.02	2.08	2.07	2.17	2.24	2.27
S.D.	1.20	1.21	1.17	1.16	1.00	1.03	0.98	0.98	1.11	1.14	1.10	1.09
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 35
Information Test
R-150: Theater and Ballet

8 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	6.9	7.2	7.6	7.7	7.4	7.6	7.8	7.9	7.3	7.4	7.7	7.8
90	5.4	6.0	6.4	6.8	6.2	6.5	7.0	7.4	5.8	6.3	6.8	7.2
75	4.3	4.8	5.3	5.7	5.1	5.5	6.0	6.4	4.7	5.2	5.6	6.1
50	3.1	3.5	4.0	4.4	3.8	4.1	4.6	5.1	3.4	3.8	4.3	4.7
25	2.0	2.4	2.8	3.1	2.6	2.9	3.2	3.7	2.2	2.6	3.0	3.4
10	1.2	1.6	1.7	2.0	1.6	1.9	2.0	2.5	1.4	1.7	1.9	2.3
2	0.5	0.5	0.7	0.7	0.6	0.7	0.8	1.2	0.5	0.7	0.8	1.0
Mean	3.24	3.64	4.06	4.40	3.83	4.18	4.56	5.00	3.54	3.91	4.32	4.72
S.D.	1.61	1.66	1.74	1.75	1.72	1.74	1.82	1.80	1.69	1.73	1.80	1.80
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 36
Information Test
R-151: Foods

4 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
98	3.3	3.4	3.5	3.6	3.4	3.5	3.6	3.8	3.4	3.4	3.5	3.7
90	2.3	2.4	2.5	2.8	2.6	2.7	3.0	3.2	2.4	2.5	2.8	3.1
75	1.5	1.8	1.9	2.1	1.9	2.1	2.2	2.5	1.8	1.9	2.1	2.3
50	0.9	1.0	1.1	1.2	1.1	1.2	1.5	1.7	1.0	1.1	1.3	1.5
25	0.3	0.4	0.4	0.5	0.4	0.5	0.6	0.9	0.4	0.4	0.5	0.7
10	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Mean	0.96	1.08	1.17	1.31	1.18	1.30	1.48	1.72	1.07	1.19	1.32	1.52
S.D.	0.92	0.96	1.00	1.05	1.00	1.01	1.06	1.08	0.97	0.99	1.04	1.09
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 37
Information Test
R-162: Vocabulary II

9 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	8.9	8.9	9.0	9.0	8.9	8.9	9.0	9.0	8.9	8.9	9.0	9.0
98	8.8	8.9	8.9	8.9	8.8	8.9	8.9	8.9	8.8	8.9	8.9	8.9
95	8.6	8.7	8.8	8.8	8.6	8.7	8.8	8.8	8.6	8.7	8.8	8.8
90	8.1	8.4	8.6	8.7	8.2	8.4	8.6	8.7	8.2	8.4	8.6	8.7
85	7.6	8.0	8.3	8.6	7.8	8.0	8.3	8.5	7.7	8.0	8.3	8.5
80	7.2	7.6	7.0	8.3	7.4	7.7	8.0	8.3	7.3	7.6	8.0	8.3
75	6.8	7.3	7.7	8.1	7.0	7.3	7.7	8.0	6.9	7.3	7.7	8.1
70	6.4	6.9	7.4	7.8	6.6	7.0	7.4	7.8	6.5	7.0	7.4	7.8
60	5.6	6.3	6.8	7.3	6.0	6.4	6.9	7.3	5.8	6.3	6.9	7.3
50	4.9	5.6	6.2	6.7	5.3	5.8	6.4	6.8	5.1	5.7	6.3	6.8
40	4.2	4.9	5.6	6.1	4.6	5.2	5.7	6.3	4.4	5.1	5.6	6.2
30	3.4	4.1	4.8	5.4	4.0	4.6	5.0	5.7	3.7	4.3	4.9	5.5
25	3.0	3.7	4.4	4.9	3.6	4.2	4.7	5.3	3.3	3.9	4.6	5.1
20	2.6	3.2	4.0	4.4	3.2	3.7	4.2	4.8	2.8	3.5	4.1	4.6
15	2.1	2.7	3.5	3.9	2.7	3.2	3.7	4.3	2.4	2.9	3.6	4.1
10	1.6	2.1	2.8	3.3	2.1	2.6	3.1	3.6	1.8	2.3	2.9	3.5
5	1.0	1.4	1.8	2.3	1.5	1.8	2.2	2.7	1.1	1.6	2.0	2.5
2	0.5	0.6	0.9	1.2	0.7	1.0	1.4	1.8	0.6	0.8	1.1	1.6
1	0.3	0.3	0.6	0.6	0.4	0.6	0.9	0.8	0.3	0.5	0.7	0.8
Mean	4.87	5.40	5.94	6.35	5.23	5.65	6.06	6.50	5.05	5.52	6.00	6.43
S.D.	2.37	2.31	2.20	2.13	2.22	2.13	2.06	1.96	2.30	2.22	2.13	2.05
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 38
Information Test
R-172: Vocabulary Total (I + II)

30 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	27.8	28.4	29.2	29.5	27.2	28.1	28.9	29.1	27.5	28.3	29.1	29.3
98	26.9	27.8	28.5	29.0	26.2	27.3	28.2	28.5	26.6	27.6	28.4	28.8
95	25.5	26.6	27.6	28.1	24.6	25.9	26.9	27.4	25.1	26.3	27.2	27.8
90	23.8	25.2	26.2	27.1	22.8	24.3	25.4	26.1	23.3	24.8	25.9	26.6
85	22.6	24.1	25.2	26.1	21.5	22.9	24.5	25.2	22.1	23.5	24.8	25.6
80	21.4	23.1	24.3	25.3	20.4	21.8	23.5	24.5	20.9	22.5	23.9	24.9
75	20.4	22.1	23.5	24.6	19.5	20.8	22.6	23.6	20.0	21.5	23.1	24.2
70	19.6	21.2	22.7	23.9	18.5	19.9	21.6	22.9	19.1	20.6	22.3	23.4
60	17.8	19.6	21.4	22.5	16.6	18.2	19.9	21.5	17.3	18.9	20.7	22.0
50	16.2	18.0	19.9	21.3	15.0	16.5	18.1	19.9	15.6	17.2	19.0	20.6
40	14.5	16.3	18.3	19.6	13.4	15.0	16.4	18.2	13.8	15.6	17.3	18.9
30	12.5	14.6	16.5	17.9	11.8	13.3	14.7	16.4	12.1	13.9	15.5	17.1
25	11.6	13.6	15.4	16.8	10.9	12.5	13.8	15.4	11.2	13.0	14.5	16.0
20	10.5	12.5	14.3	15.6	10.1	11.5	12.7	14.4	10.3	12.0	13.4	14.8
15	9.3	11.3	12.9	14.2	9.2	10.5	11.5	13.1	9.3	10.8	12.1	13.6
10	7.8	9.6	11.3	12.7	8.1	9.2	10.1	11.5	7.9	9.4	10.6	12.0
5	6.1	7.4	9.0	10.3	6.3	7.4	8.2	9.4	6.2	7.4	8.5	9.8
2	4.5	5.4	6.7	7.8	4.6	5.4	6.4	7.5	4.6	5.4	6.6	7.6
1	3.6	4.0	5.2	6.3	3.5	4.4	5.3	6.1	3.5	4.2	5.3	6.1
Mean	15.97	17.64	19.25	20.42	15.22	16.60	17.97	19.31	15.59	17.12	18.60	19.84
S.D.	5.92	5.81	5.64	5.46	5.60	5.62	5.75	5.52	5.77	5.74	5.73	5.52
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 39
Information Test
R-190: Part I Total

252 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	201.5	207.5	220.5	224.0	183.0	188.5	203.0	208.5	195.2	202.5	214.5	219.5
98	194.5	202.0	214.0	219.3	174.5	182.0	196.5	200.5	188.5	196.0	208.5	214.5
95	181.0	191.0	204.7	211.8	160.5	170.1	182.9	190.0	172.5	184.5	197.5	203.0
90	168.2	180.5	194.1	201.7	148.9	158.8	171.8	177.7	160.0	170.5	184.5	192.7
85	159.6	171.0	185.5	194.4	141.4	150.9	163.6	169.6	151.3	161.7	175.5	183.5
80	152.6	164.0	178.5	188.8	134.6	144.3	155.5	162.0	144.4	155.1	168.0	176.0
75	146.7	158.0	171.8	181.9	129.2	138.5	149.0	155.2	137.9	148.4	161.6	169.6
70	140.5	151.9	165.7	176.0	124.3	133.6	142.9	150.0	132.4	142.9	155.8	162.9
60	129.9	142.0	156.2	164.8	113.9	124.4	132.6	140.1	122.2	132.8	144.8	151.4
50	120.0	132.1	146.7	154.1	106.1	115.3	123.0	129.8	112.3	123.8	134.5	141.1
40	110.8	123.3	137.0	143.2	98.6	107.0	114.3	121.3	104.0	114.7	124.2	130.6
30	100.8	113.7	126.1	133.0	90.8	98.9	105.3	111.2	94.4	104.7	113.8	120.4
25	94.6	107.8	120.5	126.9	87.0	94.7	101.0	107.2	89.7	99.7	108.1	114.5
20	88.1	101.4	112.8	120.3	82.4	89.6	95.8	101.9	84.9	94.7	102.5	108.7
15	80.5	94.8	105.2	113.0	76.8	84.2	90.1	95.9	78.4	88.5	95.6	101.9
10	71.9	85.7	95.5	103.1	70.4	77.7	83.5	89.0	71.0	81.0	87.7	94.0
5	60.8	70.0	80.5	89.8	61.0	67.7	75.2	79.2	60.9	68.5	76.8	82.1
2	51.0	55.0	66.0	73.0	49.5	56.5	62.5	67.5	50.5	55.5	64.5	69.0
1	45.0	47.5	56.0	64.5	42.5	49.0	55.5	59.5	43.5	48.5	55.5	61.5
Mean	120.57	132.21	145.19	153.04	108.19	116.93	125.50	131.74	114.36	124.53	135.17	141.90
S.D.	36.29	36.24	37.36	37.51	30.61	31.22	33.57	33.86	34.13	34.66	36.82	37.20
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 40
Information Test
R-192: Part II Total

143 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	106.0	108.5	114.2	116.5	99.5	104.5	109.0	111.0	103.5	107.0	112.2	114.8
98	101.2	104.8	111.0	113.8	95.2	100.2	104.5	108.2	99.0	103.2	108.0	110.8
95	94.3	98.9	104.2	108.2	89.0	92.9	98.1	103.2	91.5	96.7	101.7	105.8
90	86.5	93.3	97.8	102.1	82.3	87.1	92.5	98.1	84.5	90.5	95.2	100.0
85	82.0	88.6	93.4	98.2	78.0	83.0	88.9	93.8	79.8	85.8	91.2	96.1
80	77.8	84.8	90.1	94.9	74.2	79.6	86.0	90.8	76.0	82.0	88.0	92.7
75	74.6	81.1	87.0	92.0	71.1	76.7	82.9	88.0	72.9	78.8	85.0	89.8
70	71.6	78.1	84.2	89.1	68.4	74.2	79.9	85.3	69.8	76.0	82.1	87.2
60	65.0	71.9	78.9	83.8	63.0	69.0	74.4	80.0	64.0	70.5	76.8	81.9
50	59.3	66.6	74.0	79.2	57.7	64.4	69.7	75.2	58.4	65.4	71.7	77.0
40	53.6	60.8	68.6	74.1	53.0	59.4	64.4	70.4	53.2	60.2	66.3	72.0
30	47.8	54.9	62.4	67.9	48.3	54.3	58.9	64.9	48.1	54.6	60.6	66.2
25	44.6	51.9	58.9	64.3	45.8	51.6	56.3	61.6	45.3	51.7	57.3	62.7
20	41.3	48.0	55.2	60.7	43.3	48.1	53.2	58.0	42.5	48.1	54.1	59.3
15	37.6	44.5	50.8	56.4	40.0	44.3	49.8	54.0	38.7	44.4	50.2	55.1
10	33.5	39.2	46.1	50.2	35.5	40.5	45.2	49.9	34.3	39.9	45.7	50.0
5	28.7	31.9	38.2	41.8	29.1	34.4	38.2	42.3	28.9	33.3	38.3	42.0
2	23.8	25.8	30.2	32.8	23.5	26.8	31.5	34.5	23.7	26.5	30.8	33.8
1	20.5	21.5	27.2	27.2	19.5	22.8	27.5	30.5	20.0	22.5	27.5	28.5
Mean	59.93	66.27	72.75	77.50	58.50	64.03	69.24	74.34	59.22	65.14	70.97	75.85
S.D.	20.18	20.40	19.95	19.96	18.00	17.99	18.33	18.53	19.13	19.26	19.22	19.29
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 41
Information Test
R-100: Total (Parts I + II)

395 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	305.0	312.0	333.5	338.2	280.5	289.5	308.5	315.0	296.0	305.5	325.0	332.5
98	293.5	304.5	321.5	331.5	265.5	280.5	298.5	306.8	284.0	295.0	314.0	322.5
95	273.5	287.5	306.5	316.8	247.0	261.0	279.0	290.8	260.0	279.0	295.5	306.5
90	252.5	273.2	289.8	301.9	230.0	244.1	263.0	273.8	242.8	259.0	277.5	290.3
85	240.5	258.2	277.3	291.1	217.5	232.0	250.8	261.5	229.2	245.9	265.5	277.5
80	229.0	247.3	267.8	281.8	207.1	223.1	240.5	251.5	218.9	235.5	254.5	267.5
75	220.3	238.3	257.2	272.5	200.2	214.6	231.0	242.7	209.2	226.1	245.4	257.9
70	211.2	229.2	249.1	264.1	191.9	206.5	223.0	234.3	201.3	217.3	236.8	249.1
60	195.1	212.2	234.9	248.3	176.2	193.7	206.9	219.8	185.7	202.6	221.4	233.5
50	179.6	198.3	220.3	233.7	164.1	179.7	192.1	205.8	170.9	188.9	206.2	217.8
40	164.5	183.9	205.8	216.8	151.4	166.8	179.9	192.4	157.7	175.2	191.1	203.0
30	149.8	169.3	189.8	201.3	139.9	153.9	164.5	177.6	143.8	16[illegible]3	175.3	187.5
25	140.3	160.8	180.4	192.0	134.0	146.8	157.8	168.5	136.4	152.9	166.3	179.0
20	130.5	151.9	169.0	182.2	126.3	139.2	150.3	160.9	128.2	144.2	157.5	169.2
15	119.5	140.7	157.5	172.8	118.2	130.5	141.3	151.3	118.7	135.0	147.7	158.8
10	107.5	126.8	142.0	155.5	108.2	120.8	130.2	141.1	107.9	123.2	135.2	145.8
5	92.0	104.0	122.0	134.0	92.0	103.5	114.5	124.0	91.8	103.8	117.0	127.8
5												
2	78.0	82.5	98.5	109.5	75.5	83.5	96.0	104.0	77.5	83.5	97.0	106.5
1	68.5	72.0	84.5	92.5	63.5	77.0	85.5	92.5	66.0	74.5	85.0	93.5
Mean	180.50	198.48	217.94	230.54	166.70	180.96	194.74	206.08	173.58	189.68	206.14	217.75
S.D.	54.96	55.16	55.82	55.91	47.18	47.78	50.56	50.95	51.67	52.33	54.46	54.76
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 42
R-211: Memory for Sentences Test

16 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	15.1	15.3	15.3	15.4	15.4	15.5	15.5	15.7	15.2	15.5	15.4	15.6
98	14.5	14.7	14.6	14.9	14.9	15.2	15.1	15.4	14.7	15.0	15.0	15.2
95	13.5	13.6	13.7	13.9	14.0	14.4	14.3	14.6	13.8	14.1	14.0	14.3
90	12.7	12.5	12.7	12.9	13.1	13.5	13.4	13.7	12.9	13.1	13.1	13.4
85	12.0	11.9	12.0	12.1	12.4	12.8	12.7	13.0	12.2	12.3	12.4	12.5
80	11.4	11.3	11.4	11.5	11.9	12.2	12.1	12.3	11.7	11.8	11.8	12.0
75	10.8	10.9	10.9	11.0	11.4	11.6	11.6	11.8	11.2	11.3	11.3	11.4
70	10.3	10.4	10.4	10.6	11.0	11.2	11.2	11.3	10.7	10.8	10.8	11.0
60	9.4	9.5	9.6	9.7	10.2	10.3	10.3	10.4	9.8	9.9	10.0	10.1
50	8.6	8.6	8.8	8.8	9.4	9.5	9.5	9.6	9.0	9.1	9.2	9.2
40	7.8	7.8	7.9	7.9	8.6	8.7	8.7	8.7	8.2	8.2	8.3	8.3
30	6.9	7.0	7.0	7.0	7.7	7.8	7.8	7.8	7.3	7.4	7.4	7.4
25	6.4	6.5	6.5	6.6	7.2	7.3	7.4	7.3	6.8	6.9	6.9	6.9
20	5.9	6.0	6.0	6.0	6.7	6.8	6.8	6.7	6.3	6.4	6.4	6.4
15	5.3	5.5	5.5	5.5	6.0	6.1	6.1	6.0	5.7	5.8	5.8	5.7
10	4.5	4.7	4.7	4.7	5.3	5.4	5.4	5.2	4.8	5.0	5.0	4.9
5	3.3	3.6	3.6	3.6	4.0	4.3	4.2	4.1	3.7	3.9	3.9	3.8
2	2.2	2.6	2.4	2.0	2.9	3.0	2.9	2.8	2.6	2.8	2.6	2.5
1	1.1	1.9	1.6	0.5	2.0	1.9	2.1	1.8	1.5	1.9	1.9	1.0
Mean	8.58	8.66	8.71	8.75	9.24	9.44	9.41	9.47	8.91	9.05	9.07	9.13
S.D.	3.10	3.01	3.05	3.16	2.99	3.08	3.03	3.19	3.06	3.07	3.06	3.20
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 43
R-212: Memory for Words Test

24 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	23.1	23.5	23.7	23.8	23.7	23.8	23.9	23.9	23.6	23.8	23.8	23.9
98	21.4	22.3	23.3	23.6	23.3	23.6	23.8	23.8	22.7	23.5	23.7	23.7
95	18.7	19.8	21.5	21.7	21.0	22.3	23.3	23.5	20.1	21.4	22.5	22.9
90	16.2	17.3	19.0	19.1	18.5	20.1	21.4	21.6	17.4	18.8	20.4	20.6
85	14.5	15.5	17.0	17.3	16.7	18.3	19.8	20.0	15.7	17.1	18.6	18.9
80	13.2	14.0	15.5	15.9	15.4	17.0	18.3	18.7	14.3	15.7	17.0	17.5
75	12.3	13.0	14.3	14.7	14.2	15.8	17.0	17.5	13.2	14.5	15.8	16.2
70	11.5	12.1	13.3	13.8	13.2	14.8	15.9	16.3	12.4	13.4	14.7	15.1
60	10.1	10.7	11.5	12.1	11.6	13.0	14.1	14.3	10.9	11.7	12.8	13.2
50	9.0	9.5	10.1	10.7	10.3	11.4	12.3	12.6	9.6	9.4	11.2	11.6
40	7.9	8.4	8.9	9.2	9.1	10.0	10.7	11.1	8.5	9.1	9.7	10.1
30	6.8	7.2	7.7	7.9	8.0	8.6	9.3	9.4	7.3	7.8	8.4	3.6
25	6.2	6.6	7.1	7.2	7.4	7.9	8.5	8.6	6.8	7.2	7.7	7.9
20	5.6	6.0	6.4	6.6	6.7	7.2	7.8	7.9	6.1	6.5	7.0	7.2
15	4.9	5.4	5.7	5.8	6.0	6.3	6.9	7.1	5.4	5.8	6.2	6.4
10	4.1	4.6	4.8	5.0	5.1	5.4	5.9	6.1	4.6	4.9	5.2	5.5
5	3.2	3.5	3.5	3.8	3.9	4.1	4.5	4.8	3.5	3.8	3.9	4.2
2	1.8	2.3	2.3	2.5	2.6	2.8	3.2	3.4	2.2	2.6	2.6	2.8
1	0.8	1.3	1.0	0.5	1.3	1.6	2.2	2.5	1.3	1.5	1.6	1.7
Mean	9.62	10.20	10.98	11.31	11.08	12.06	12.92	13.17	10.35	11.13	11.96	12.28
S.D.	4.70	4.88	5.32	5.34	5.08	5.46	5.66	5.69	4.95	5.26	5.58	5.60
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 44
R-220: Disguised Words Test

30 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	28.2	28.9	29.5	29.6	28.9	29.1	29.5	29.7	28.6	29.0	29.5	29.6
98	26.4	28.0	28.8	29.1	27.7	28.2	29.1	29.4	27.2	28.1	29.0	29.2
95	23.6	25.5	26.8	27.5	24.9	26.2	27.9	28.3	24.3	25.9	27.5	28.0
90	21.1	23.2	24.5	25.4	22.6	24.0	25.9	26.8	21.9	23.6	25.4	26.3
85	19.1	21.2	23.9	23.8	20.9	22.4	24.4	25.4	20.1	21.9	23.7	24.6
80	17.3	19.6	21.4	22.4	19.4	21.0	23.1	24.0	18.5	20.3	22.3	23.3
75	16.1	18.2	20.1	20.8	18.1	19.8	21.8	22.9	17.1	19.1	21.0	22.0
70	15.0	16.9	19.0	19.6	16.9	18.6	20.7	21.7	15.9	17.8	19.8	20.8
60	13.2	14.5	16.6	17.2	14.8	16.4	18.1	19.6	14.0	15.6	17.4	18.6
50	11.5	12.7	14.4	15.2	13.0	14.4	16.0	17.6	12.2	13.5	15.2	16.4
40	9.8	11.0	12.6	13.3	11.1	12.6	14.0	15.4	10.4	11.8	13.3	14.4
30	8.2	9.4	10.5	11.3	9.2	10.6	12.0	13.4	8.7	9.9	11.2	12.3
25	7.4	8.4	9.5	10.3	8.2	9.5	10.7	12.3	7.8	8.9	10.1	11.2
20	6.6	7.4	8.4	9.1	7.2	8.4	9.6	11.1	6.9	7.8	8.9	10.0
15	5.7	6.4	7.3	7.9	6.2	7.2	8.2	9.6	5.9	6.7	7.7	8.6
10	4.7	5.2	5.9	6.5	4.9	5.7	6.7	7.9	4.8	5.4	6.3	7.1
5	3.4	3.5	4.0	4.7	3.2	4.1	4.9	5.5	3.3	3.8	4.4	5.1
2	1.8	1.7	1.8	2.4	1.4	2.2	2.9	3.2	1.6	2.0	2.5	2.8
1	0.7	0.5	0.4	0.5	0.4	1.1	1.7	1.7	0.5	0.8	0.8	1.0
Mean	12.16	6.69	14.87	15.57	13.35	14.70	16.21	17.36	12.75	14.08	15.55	16.51
S.D.	6.18	13.46	6.99	7.01	6.67	6.77	7.07	6.96	6.46	6.76	7.06	7.04
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 45
English Test
R-231: Spelling

16 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	14.5	15.1	15.3	15.5	15.2	15.5	15.7	15.8	15.1	15.3	15.6	15.7
98	13.8	14.4	14.7	15.2	14.8	15.0	15.5	15.6	14.4	14.7	15.3	15.5
95	12.6	13.3	13.8	14.2	13.9	14.1	14.8	15.1	13.4	13.8	14.4	14.8
90	11.4	12.1	12.8	13.2	12.8	13.2	14.0	14.4	12.2	12.8	13.5	14.1
85	10.6	11.3	12.1	12.6	12.1	12.5	13.4	14.0	11.4	12.1	12.9	13.4
80	10.0	10.7	11.5	12.0	11.4	12.0	12.9	13.5	10.8	11.4	12.3	13.0
75	9.4	10.2	11.0	11.5	11.0	11.5	12.5	13.2	10.3	11.0	11.8	12.5
70	8.9	9.7	10.5	11.1	10.5	11.2	12.1	12.8	9.8	10.5	11.4	12.1
60	8.1	8.9	9.7	10.3	9.8	10.4	11.3	12.0	9.0	9.7	10.5	11.2
50	7.4	8.1	8.9	9.6	9.0	9.6	10.5	11.3	8.2	8.9	9.7	10.5
40	6.6	7.3	8.1	8.8	8.2	8.9	9.8	10.6	7.4	8.1	8.9	9.7
30	5.9	6.5	7.3	8.0	7.5	8.1	9.0	9.7	6.6	7.3	8.1	8.8
25	5.5	6.0	6.8	7.5	7.0	7.7	8.5	9.3	6.2	6.8	7.6	8.4
20	5.0	5.5	6.2	7.0	6.6	7.3	8.0	8.8	5.7	6.3	7.1	7.8
15	4.4	5.0	5.6	6.4	6.0	6.7	7.5	8.2	5.1	5.7	6.4	7.2
10	3.7	4.3	4.9	5.6	5.3	6.0	6.7	7.4	4.4	5.0	5.6	6.5
5	2.7	3.4	3.8	4.3	4.4	4.9	5.6	6.4	3.3	3.9	4.6	5.1
2	1.7	2.2	2.4	2.6	3.1	3.7	4.6	4.9	2.1	2.6	3.2	3.5
1	0.8	1.6	1.1	1.0	2.2	2.2	3.6	3.7	1.3	1.7	1.9	1.8
Mean	7.48	8.13	8.84	9.43	9.00	9.59	10.40	11.07	8.24	8.86	9.63	10.29
S.D.	2.95	2.98	3.03	3.00	2.86	2.80	2.79	2.76	3.00	2.98	3.01	2.99
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 46
English Test
R-232: Capitalization

33 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	32.7	32.8	32.9	32.9	32.9	32.9	32.9	33.0	32.8	32.9	32.9	32.9
98	32.5	32.6	32.8	32.8	32.8	32.9	32.9	32.9	32.7	32.8	32.9	32.9
95	32.1	32.3	32.4	32.5	32.5	32.7	32.8	32.8	32.4	32.5	32.7	32.7
90	31.6	31.9	32.1	32.3	32.2	32.4	32.5	32.6	32.0	32.2	32.4	32.4
85	31.2	31.5	31.8	32.0	32.0	32.2	32.3	32.4	31.7	31.9	32.1	32.2
80	30.9	31.2	31.5	31.7	31.7	32.0	32.1	32.2	31.4	31.7	31.9	32.0
75	30.6	31.0	31.3	31.5	31.4	31.8	31.9	32.1	31.1	31.4	31.7	31.8
70	30.3	30.7	31.1	31.3	31.2	31.5	31.8	31.9	30.8	31.2	31.5	31.6
60	29.7	30.2	30.6	30.9	30.8	31.2	31.4	31.6	30.3	30.7	31.0	31.2
50	29.0	29.6	30.1	30.4	30.3	30.7	31.0	31.2	29.7	30.2	30.6	30.8
40	28.0	28.9	29.6	29.9	29.6	30.2	30.6	30.7	28.8	29.6	30.0	30.4
30	26.8	27.9	28.8	29.2	28.7	29.6	29.9	30.2	27.8	28.7	29.4	29.7
25	26.0	27.3	28.4	28.7	28.1	29.1	29.5	29.8	27.1	28.2	28.9	29.3
20	25.1	26.5	27.8	28.1	27.5	28.6	29.0	29.5	26.2	27.5	28.4	28.8
15	23.8	25.5	26.9	27.3	26.4	27.6	28.4	28.8	25.0	26.5	27.6	28.0
10	21.8	23.8	25.8	26.2	24.9	26.4	27.4	27.9	23.2	25.0	26.5	27.0
5	18.2	20.8	23.2	23.7	21.9	23.6	25.3	26.0	19.9	22.1	24.2	24.9
2	12.5	13.5	17.2	17.5	16.5	19.0	21.5	21.8	14.2	16.0	19.5	20.0
1	1.0	1.5	2.0	0.5	2.2	8.0	17.5	17.0	2.0	2.2	9.5	3.0
Mean	27.46	28.28	29.12	29.35	29.02	29.69	30.17	30.39	28.24	28.99	29.66	29.90
S.D.	5.13	4.80	4.25	4.42	4.44	4.02	3.48	3.47	4.86	4.48	3.91	3.99
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 47
English Test
R-233: Punctuation

27 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	25.1	25.6	26.1	26.4	25.9	26.3	26.5	26.7	25.6	26.1	26.4	26.6
98	24.2	24.8	25.5	25.8	25.2	25.7	26.2	26.4	24.9	25.4	25.9	26.2
95	22.5	23.3	24.3	24.9	24.0	24.8	25.3	25.7	23.4	24.3	25.0	25.4
90	20.9	22.0	22.9	23.6	22.8	23.7	24.3	24.9	22.0	23.0	23.8	24.4
85	19.9	20.9	21.9	22.7	21.7	22.8	23.6	24.2	20.9	22.0	22.9	23.6
80	19.0	20.0	21.1	21.9	20.9	22.1	23.0	23.6	20.0	21.2	22.2	22.9
75	18.3	19.2	20.3	21.2	20.1	21.4	22.3	23.0	19.3	20.5	21.5	22.2
70	17.6	18.5	19.7	20.5	19.4	20.8	21.7	22.4	18.6	19.8	20.8	21.6
60	16.3	17.3	18.3	19.1	18.2	19.6	20.5	21.3	17.3	18.4	19.5	20.4
50	15.1	16.1	17.1	17.9	17.0	18.3	19.3	20.1	16.1	17.2	18.3	19.1
40	14.0	15.0	15.9	16.8	15.8	17.1	18.2	19.0	14.9	16.0	17.0	17.9
30	12.9	13.8	14.7	15.6	14.6	15.8	16.8	17.7	13.7	14.7	15.6	16.5
25	12.2	13.1	14.0	14.9	13.9	15.1	16.0	16.9	13.0	14.0	14.9	15.8
20	11.4	12.4	13.3	14.1	13.1	14.3	15.2	16.0	12.2	13.2	14.1	15.0
15	10.5	11.5	12.3	13.2	12.3	13.3	14.3	15.1	11.4	12.3	13.2	14.1
10	9.3	10.3	11.1	11.9	11.3	12.0	13.0	13.9	10.2	11.1	12.0	12.9
5	7.7	8.6	9.2	10.3	9.5	10.2	11.2	12.2	8.4	9.2	10.1	11.0
2	5.8	6.6	6.9	8.2	7.5	7.8	9.2	9.8	6.5	7.1	7.8	8.9
1	4.2	4.5	5.2	4.5	6.1	6.2	7.5	8.5	5.0	5.5	6.2	7.0
Mean	15.13	16.09	16.99	17.78	16.92	18.02	18.94	19.66	16.03	17.06	17.98	18.76
S.D.	4.52	4.51	4.63	4.60	4.46	4.56	4.41	4.36	4.58	4.64	4.62	4.57
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 48
English Test
R-234: English Usage

25 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	21.8	22.5	23.1	23.5	22.2	23.0	23.4	24.0	22.1	22.7	23.3	23.8
98	21.2	21.9	22.5	23.0	21.7	22.3	22.9	23.4	21.4	22.2	22.7	23.2
95	20.2	20.9	21.4	22.1	20.9	21.4	22.0	22.5	20.5	21.2	21.8	22.3
90	19.3	19.9	20.5	21.1	20.0	20.6	21.2	21.8	19.6	20.3	20.9	21.5
85	18.6	19.2	19.8	20.4	19.3	20.0	20.5	21.2	19.0	19.6	20.2	20.9
80	18.0	18.5	19.3	19.9	18.8	19.4	20.0	20.7	18.5	19.1	19.7	20.3
75	17.5	18.1	18.8	19.4	18.4	19.0	19.5	20.2	18.0	18.5	19.2	19.8
70	17.0	17.6	18.3	18.9	17.9	18.5	19.1	19.8	17.5	18.1	18.8	19.4
60	16.1	16.7	17.5	18.0	17.1	17.8	18.4	19.0	16.6	17.3	18.0	18.6
50	15.3	15.9	16.7	17.2	16.3	17.0	17.6	18.3	15.8	16.5	17.2	17.8
40	14.4	15.1	15.9	16.4	15.5	16.2	16.8	17.5	14.9	15.7	16.3	17.0
30	13.4	14.2	15.0	15.6	14.6	15.4	15.9	16.7	14.0	14.8	15.5	16.1
25	12.8	13.7	14.5	15.0	14.1	14.9	15.5	16.2	13.5	14.2	15.0	15.6
20	12.2	13.0	13.9	14.5	13.5	14.3	14.9	15.7	12.8	13.6	14.4	15.0
15	11.4	12.3	13.2	13.7	12.9	13.6	14.3	15.0	12.1	12.9	13.7	14.3
10	10.4	11.3	12.2	12.8	12.0	12.7	13.5	14.0	11.2	11.9	12.8	13.4
5	8.5	9.6	10.9	11.3	10.6	11.2	12.0	12.7	9.5	10.3	11.4	11.9
2	5.9	7.1	8.5	9.5	8.9	9.2	10.3	10.6	7.1	8.0	9.7	10.1
1	3.5	5.0	5.5	6.5	7.2	7.5	9.2	9.0	5.2	6.0	7.5	7.8
Mean	14.92	15.66	16.46	16.97	16.07	16.72	17.36	18.00	15.50	16.19	16.92	17.51
S.D.	3.65	3.53	3.43	3.50	3.20	3.27	3.13	3.23	3.48	3.44	3.31	3.40
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 49
English Test
R-235: Effective Expression

12 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	11.8	11.9	11.9	12.0	11.9	11.9	11.9	12.0	11.8	11.9	11.9	12.0
98	11.6	11.8	11.8	11.9	11.7	11.8	11.9	11.9	11.7	11.8	11.9	11.9
95	11.2	11.5	11.6	11.8	11.4	11.6	11.7	11.8	11.3	11.5	11.7	11.8
90	10.6	11.0	11.3	11.5	10.9	11.2	11.5	11.6	10.8	11.1	11.4	11.6
85	10.1	10.5	10.9	11.2	10.5	10.9	11.2	11.4	10.3	10.7	11.1	11.4
80	9.7	10.2	10.6	11.0	10.2	10.5	10.0	11.2	10.0	10.4	10.8	11.1
75	9.3	9.9	10.3	10.7	9.9	10.3	10.7	11.0	9.6	10.1	10.5	10.9
70	9.0	9.6	10.1	10.5	9.6	10.0	10.4	10.8	9.3	9.8	10.3	10.6
60	8.3	8.9	9.5	9.9	9.0	9.5	10.0	10.3	8.7	9.2	9.8	10.2
50	7.6	8.3	8.9	9.4	8.4	8.9	9.5	9.9	8.0	8.6	9.2	9.7
40	6.8	7.7	8.3	8.8	7.7	8.3	8.9	9.4	7.3	8.0	8.6	9.1
30	6.0	6.9	7.6	8.2	7.0	7.7	8.2	8.8	6.5	7.3	7.9	8.5
25	5.5	6.4	7.1	7.9	6.6	7.3	7.9	8.5	6.1	6.8	7.5	8.2
20	4.9	5.8	6.7	7.5	6.2	6.8	7.5	8.1	5.6	6.4	7.0	7.8
15	4.2	5.2	6.0	6.8	5.7	6.3	6.9	7.6	4.9	5.7	6.5	7.2
10	3.5	4.5	5.3	6.0	5.0	5.7	6.2	6.9	4.1	5.0	5.7	6.5
5	2.5	3.2	4.0	4.7	3.9	4.7	5.1	5.8	3.0	3.8	4.6	5.2
2	1.3	1.8	2.6	2.9	2.7	3.2	3.8	4.4	1.8	2.4	3.0	3.6
1	0.6	0.9	1.0	1.5	1.7	2.2	2.8	3.1	0.9	1.3	1.9	2.2
Mean	7.29	7.96	8.54	9.03	8.12	8.62	9.10	9.54	7.71	8.29	8.82	9.29
S.D.	2.66	2.51	2.38	2.26	2.31	2.19	2.12	2.00	2.52	2.38	2.27	2.14
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 50
English Test
R-230: Total

113 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	100.5	102.5	105.2	105.7	102.5	105.0	106.8	107.7	101.8	104.1	106.3	106.8
98	97.3	100.7	102.8	104.0	100.9	103.2	105.3	106.3	100.0	102.1	104.5	105.6
95	93.4	95.9	98.8	101.2	97.6	99.9	102.3	104.2	95.9	98.5	101.2	103.1
90	88.9	92.3	95.3	97.9	93.0	96.8	99.8	101.8	92.1	95.2	98.1	100.5
85	86.3	89.7	92.9	95.2	91.7	94.8	97.6	100.0	89.6	92.8	95.9	98.4
80	84.4	87.3	90.9	93.2	90.0	93.1	96.1	98.5	87.4	90.9	93.9	96.6
75	82.5	85.6	89.2	91.5	88.3	91.6	94.5	97.1	85.6	89.0	92.3	94.8
70	80.6	83.8	87.5	89.9	86.5	90.1	93.2	95.6	83.8	87.3	90.7	93.3
60	77.3	80.4	84.1	86.9	83.3	87.2	90.3	93.2	80.6	84.1	87.5	90.4
50	74.2	77.6	81.3	84.1	80.6	84.4	87.4	90.5	77.5	80.9	84.3	87.5
40	70.8	74.6	78.2	81.3	77.6	81.4	84.5	87.7	74.2	77.8	81.3	84.4
30	66.8	71.1	74.7	78.0	74.2	78.1	81.2	84.4	70.4	74.4	77.9	81.1
25	64.6	68.8	72.9	76.1	72.2	76.2	79.3	82.4	68.3	72.2	75.9	79.2
20	61.4	66.5	70.8	73.9	69.9	73.9	77.4	80.4	65.8	69.8	73.7	76.9
15	58.1	63.7	68.1	71.0	67.4	70.9	74.7	77.9	62.2	66.7	71.0	74.2
10	53.9	59.8	64.4	67.8	63.3	67.1	71.1	74.4	57.6	62.8	67.3	70.5
5	46.7	51.5	57.5	61.0	56.7	60.8	65.2	68.8	50.9	55.5	61.0	64.7
2	37.0	41.2	47.5	52.5	47.5	49.5	57.8	61.5	40.5	45.0	51.5	55.5
1	31.0	32.5	38.0	33.5	40.5	42.5	50.5	49.5	34.5	36.5	43.5	42.0
Mean	72.38	76.21	79.99	82.64	79.23	82.68	86.01	88.68	75.82	79.46	83.05	85.80
S.D.	14.77	14.15	13.81	14.06	13.11	13.25	12.32	12.58	14.38	14.08	13.42	13.64
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 51
R-240: Word Functions in Sentences Test

24 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	21.3	21.9	22.1	22.9	22.0	23.0	23.1	23.2	21.8	22.6	23.8	23.1
98	19.8	20.9	21.4	22.1	21.0	22.3	22.5	22.5	20.5	21.8	22.1	22.4
95	17.0	18.9	20.0	20.3	19.2	20.8	21.3	21.3	18.3	20.0	20.8	21.0
90	14.6	16.6	17.9	18.5	16.9	18.9	19.8	20.1	15.9	17.9	19.0	19.5
85	12.8	14.7	16.3	17.0	15.2	17.3	18.4	19.0	14.1	16.3	17.4	18.2
80	11.4	13.2	14.9	15.7	13.7	16.1	17.1	17.9	12.6	14.8	16.2	16.9
75	10.1	11.9	13.6	14.5	12.4	14.8	16.1	16.8	11.2	13.3	14.9	15.8
70	9.2	10.8	12.4	13.4	11.1	13.5	14.8	15.8	10.1	12.1	13.7	14.7
60	7.9	9.0	10.5	11.5	9.2	11.2	12.6	13.7	8.5	10.1	11.6	12.6
50	6.9	7.7	8.8	9.7	7.8	9.4	10.7	11.7	7.3	8.4	9.6	10.6
40	6.0	6.7	7.4	8.2	6.7	8.0	8.8	9.8	6.3	7.2	8.1	8.9
30	5.1	5.7	6.2	6.9	5.8	6.7	7.3	7.9	5.5	6.2	6.7	7.4
25	4.7	5.2	5.7	6.3	5.4	6.1	6.6	7.1	5.0	5.6	6.1	6.7
20	4.2	4.7	5.1	5.7	4.8	5.5	5.9	6.4	4.5	5.1	5.5	6.0
15	3.7	4.1	4.5	5.0	4.2	4.9	5.2	5.7	3.9	4.5	4.8	5.3
10	3.0	3.4	3.7	4.2	3.6	4.1	4.5	4.8	3.3	3.7	4.0	4.5
5	2.1	2.5	2.6	3.0	2.6	3.1	3.3	3.7	2.4	2.7	2.9	3.4
2	0.6	0.8	0.8	1.7	1.4	2.0	2.1	2.5	1.0	1.6	1.6	2.0
1	0.3	0.3	0.3	0.4	0.5	0.9	1.0	1.2	0.3	0.4	0.4	0.5
Mean	7.86	8.87	9.82	10.56	9.10	10.55	11.40	12.06	8.48	9.72	10.62	11.34
S.D.	4.54	5.01	5.35	5.39	5.09	5.54	5.73	5.73	4.86	5.35	5.61	5.62
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Table 3-2. Part 52
R-250: Reading Comprehension Test

48 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	45.9	46.6	47.2	47.6	45.7	46.4	47.3	47.5	45.8	46.5	47.3	47.6
98	44.7	45.9	46.6	47.3	44.8	45.8	46.7	47.1	44.8	45.8	46.7	47.2
95	42.7	44.1	45.3	46.3	42.9	44.2	45.6	46.1	42.8	44.2	45.5	46.2
90	39.9	42.0	43.8	44.9	40.3	42.2	44.0	44.8	40.1	41.8	43.9	44.9
85	37.2	40.1	42.3	43.8	38.0	40.5	42.5	43.7	37.7	40.3	42.4	43.7
80	35.2	38.3	41.1	42.7	36.1	38.7	41.2	42.8	35.7	38.5	41.1	42.7
75	33.1	36.5	39.8	41.5	34.3	37.0	39.8	41.6	33.7	36.8	39.8	41.6
70	31.2	34.7	38.5	40.4	32.4	35.6	38.7	40.6	31.8	35.2	38.6	40.5
60	27.9	31.5	35.7	37.8	29.0	32.8	35.4	38.1	28.5	32.1	35.6	38.0
50	24.3	28.2	32.6	35.2	26.1	29.6	32.3	35.2	25.1	29.0	32.5	35.2
40	21.0	24.7	29.4	32.2	22.8	26.6	29.3	32.2	22.0	25.7	29.4	32.2
30	17.5	21.3	25.6	28.4	19.9	23.3	26.1	28.9	18.8	22.3	25.9	28.7
25	15.6	19.4	23.2	26.0	18.3	21.5	24.3	27.1	17.0	20.5	23.8	26.6
20	13.7	17.0	20.9	23.7	16.5	19.7	22.3	24.9	15.1	18.5	21.7	24.4
15	11.9	14.8	18.0	21.0	14.5	17.7	20.0	22.3	13.2	16.1	19.1	21.8
10	10.2	12.0	14.9	17.6	12.6	15.1	17.3	19.5	11.1	13.6	16.2	18.5
5	7.8	9.0	10.8	12.7	9.5	12.0	13.6	15.7	8.4	10.1	12.1	14.2
2	5.3	5.9	6.8	8.7	6.4	8.2	10.2	10.8	5.8	6.8	8.5	9.7
1	1.5	3.0	0.5	6.0	3.5	5.8	8.2	7.2	2.5	4.5	5.5	6.8
Mean	24.55	27.52	30.84	33.02	26.09	29.05	31.46	33.56	25.32	28.29	31.16	33.30
S.D.	10.98	11.01	10.89	10.48	10.35	10.10	10.04	9.81	10.70	10.59	10.47	10.14
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 53
R-260: Creativity

20 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	17.2	17.9	18.6	19.2	16.0	16.8	17.4	18.1	16.8	17.4	18.2	18.8
98	16.3	17.0	17.9	18.5	15.0	15.9	16.6	17.1	15.7	16.4	17.3	18.0
95	14.6	15.4	16.4	17.1	13.4	14.1	15.2	15.6	14.0	14.8	15.9	16.4
90	12.9	13.9	15.0	15.8	12.0	12.7	13.8	14.3	12.4	13.3	14.4	15.1
85	11.9	12.7	13.9	14.8	11.1	11.8	12.8	13.3	11.4	12.3	13.4	14.1
80	11.0	11.8	13.1	14.1	10.3	11.1	12.0	12.7	10.6	11.4	12.6	13.3
75	10.2	11.1	12.4	13.3	9.6	10.4	11.2	12.0	9.9	10.8	11.9	12.6
70	9.6	10.5	11.8	12.7	9.0	9.8	10.6	11.4	9.3	10.1	11.2	12.0
60	8.4	9.3	10.6	11.5	8.0	8.7	9.4	10.3	8.2	9.0	10.0	10.9
50	7.4	8.2	9.4	10.4	7.0	7.7	8.4	9.2	7.2	7.9	8.9	9.8
40	6.3	7.1	8.3	9.2	6.1	6.8	7.4	8.1	6.2	6.9	7.8	8.6
30	5.4	6.1	7.0	7.8	5.1	5.8	6.3	7.0	5.3	5.9	6.6	7.4
25	4.9	5.5	6.4	7.2	4.7	5.2	5.8	6.5	4.8	5.4	6.1	6.8
20	4.3	4.8	5.8	6.5	4.1	4.6	5.2	5.8	4.2	4.7	5.5	6.1
15	3.7	4.1	5.0	5.8	3.5	4.0	4.6	5.1	3.6	4.0	4.7	5.4
10	3.0	3.3	3.9	4.7	2.8	3.2	3.9	4.1	2.9	3.3	3.9	4.4
5	2.0	2.4	2.6	3.2	1.7	2.2	2.8	2.8	1.8	2.3	2.7	3.0
2	0.9	1.0	1.0	1.6	0.7	1.1	1.6	1.6	0.8	1.1	1.3	1.6
1	0.4	0.4	0.4	0.5	0.3	0.5	0.6	0.7	0.4	0.5	0.5	0.5
Mean	7.70	8.42	9.45	10.27	7.23	7.88	8.61	9.22	7.46	8.15	9.02	9.72
S.D.	3.79	3.96	4.17	4.22	3.54	3.64	3.78	3.87	3.67	3.81	4.00	4.07
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 54
R-270: Mechanical Reasoning

20 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	19.3	19.5	19.7	19.8	16.4	17.2	17.2	17.6	18.8	19.2	19.5	19.6
98	18.8	19.2	19.5	19.6	15.4	16.2	16.4	16.8	18.1	18.6	19.0	19.3
95	17.6	18.2	18.8	19.1	13.9	14.6	15.1	15.3	16.6	17.4	17.9	18.4
90	16.4	17.2	17.8	18.4	12.4	13.2	13.6	13.9	15.2	16.1	16.7	17.2
85	15.6	16.5	17.2	17.7	11.5	12.2	12.6	12.9	14.1	15.1	15.8	16.3
80	14.8	15.8	16.6	17.1	10.7	11.3	11.7	12.0	13.2	14.2	15.0	15.4
75	14.1	15.2	16.0	16.6	10.0	10.7	11.0	11.3	12.4	13.4	14.2	14.7
70	13.5	14.7	15.5	16.1	9.4	10.1	10.4	10.7	11.7	12.6	13.4	13.9
60	12.4	13.5	14.4	15.1	8.4	9.0	9.3	9.5	10.4	11.3	12.0	12.4
50	11.4	12.4	13.4	14.1	7.5	8.1	8.4	8.5	9.2	10.0	10.6	10.9
40	10.2	11.2	12.2	12.9	6.7	7.2	7.5	7.5	8.1	8.8	9.3	9.5
30	9.0	10.0	10.9	11.5	5.9	6.3	6.5	6.6	7.0	7.6	8.0	8.2
25	8.3	9.3	10.2	10.8	5.4	5.8	5.9	6.1	6.4	7.0	7.3	7.5
20	7.5	8.5	9.4	9.9	4.9	5.3	5.4	5.6	5.8	6.3	6.6	6.8
15	6.7	7.7	8.3	8.8	4.4	4.8	4.8	5.0	5.1	5.6	5.8	6.0
10	5.7	6.6	7.1	7.6	3.7	4.1	4.1	4.4	4.4	4.8	5.0	5.1
5	4.4	4.9	5.6	5.9	2.8	3.1	3.2	3.5	3.3	3.7	3.8	4.0
2	3.0	3.2	3.7	3.9	1.6	2.1	2.2	2.5	2.0	2.5	2.6	2.8
1	1.7	1.8	0.5	2.5	0.6	1.5	1.3	1.7	0.9	1.5	1.2	1.7
Mean	11.17	12.10	12.87	13.46	7.83	8.37	8.63	8.84	9.50	10.22	10.71	11.04
S.D.	4.04	4.08	4.10	4.11	3.37	3.48	3.59	3.63	4.08	4.23	4.40	4.50
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 55
R-281: Visualization in Two Dimensions

24 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	23.3	23.6	23.8	23.7	22.5	23.2	23.1	23.3	23.0	23.5	23.6	23.6
98	22.6	23.2	23.6	23.5	21.5	22.4	22.4	22.5	22.2	22.9	23.2	23.2
95	20.3	22.1	22.5	22.4	19.8	20.8	20.8	21.0	20.7	21.6	22.0	21.9
90	19.8	20.7	21.4	21.2	18.0	18.9	19.2	19.3	19.1	20.0	20.5	20.4
85	18.6	19.5	20.4	20.2	16.8	17.7	18.0	18.0	17.8	18.7	19.3	19.3
80	17.6	18.6	19.4	19.4	15.7	16.6	17.0	16.9	16.7	17.7	18.3	18.3
75	16.7	17.7	18.5	18.5	14.8	15.6	15.9	15.9	15.8	16.8	17.4	17.4
70	15.9	16.9	17.8	17.8	14.0	14.8	15.0	15.1	14.9	15.9	16.6	16.5
60	14.3	15.4	16.3	16.4	12.6	13.1	13.5	13.6	13.4	14.3	14.9	15.0
50	12.9	14.0	14.8	15.1	11.2	11.6	12.0	12.3	12.0	12.8	13.4	13.6
40	11.4	12.4	13.3	13.7	9.5	10.1	10.5	10.8	10.5	11.2	11.8	12.1
30	9.7	10.8	11.6	12.1	7.7	8.4	8.7	9.0	8.6	9.5	10.1	10.4
25	8.6	9.8	10.6	11.1	6.8	7.3	7.7	8.0	7.5	8.4	9.0	9.3
20	7.2	8.4	9.5	9.9	5.7	6.2	6.5	6.7	6.4	7.1	7.8	8.1
15	5.7	6.7	8.0	8.5	4.6	4.9	5.1	5.2	5.1	5.6	6.2	6.4
10	4.1	4.7	5.8	6.0	3.3	3.7	3.7	3.8	3.7	4.1	4.4	4.5
5	2.3	2.6	2.9	3.3	1.9	2.0	2.1	2.0	2.1	2.3	2.4	2.4
2	0.9	0.9	0.8	1.2	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9
1	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.4
Mean	12.46	13.41	14.19	14.40	10.90	11.49	11.77	11.90	11.68	12.45	12.96	13.09
S.D.	5.67	5.76	5.76	5.59	5.42	5.62	5.63	5.63	5.60	5.77	5.82	5.74
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 56
R-282: Visualization in Three Dimensions

16 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	15.0	15.3	15.5	15.6	14.3	14.4	14.8	15.3	14.6	15.1	15.3	15.5
98	14.4	14.8	15.2	15.4	13.5	13.9	14.2	14.7	14.1	14.4	14.9	15.2
95	13.5	14.0	14.4	14.7	12.4	12.8	13.2	13.7	13.1	13.5	14.0	14.3
90	12.5	13.1	13.7	14.0	11.2	11.9	12.3	12.7	12.0	12.6	13.1	13.5
85	11.8	12.4	13.1	13.5	10.4	11.1	11.5	12.0	11.2	11.8	12.4	12.8
80	11.2	11.8	12.5	12.9	9.8	10.5	10.9	11.4	10.5	11.2	11.8	12.2
75	10.6	11.3	12.0	12.4	9.3	9.9	10.3	10.8	9.9	10.6	11.2	11.6
70	10.0	10.7	11.5	12.0	8.7	9.4	9.8	10.3	9.4	10.1	10.6	11.1
60	8.9	9.7	10.4	11.0	7.9	8.4	8.9	9.3	8.4	9.1	9.6	10.1
50	8.0	8.7	9.5	10.0	7.2	7.6	8.0	8.3	7.5	8.1	8.7	9.2
40	7.1	7.7	8.5	9.0	6.4	6.8	7.2	7.5	6.7	7.2	7.8	8.1
30	6.2	6.7	7.5	7.9	5.7	6.0	6.4	6.7	5.9	6.3	6.8	7.1
25	5.7	6.2	6.8	7.2	5.3	5.6	6.0	6.2	5.5	5.9	6.3	6.6
20	5.1	5.6	6.2	6.5	4.8	5.2	5.6	5.7	5.0	5.4	5.8	6.0
15	4.5	5.0	5.4	5.8	4.3	4.7	5.0	5.1	4.4	4.8	5.2	5.4
10	3.8	4.3	4.6	4.9	3.6	4.0	4.4	4.3	3.7	4.2	4.5	4.6
5	2.8	3.2	3.4	3.8	2.8	3.1	3.5	3.5	2.8	3.2	3.5	3.6
2	1.6	1.9	1.7	2.5	1.7	2.1	2.5	2.3	1.6	2.0	2.0	2.4
1	0.6	0.8	0.4	1.2	0.6	1.2	1.6	1.3	0.6	1.0	0.8	1.2
Mean	8.08	8.68	9.27	9.71	7.31	7.78	8.17	8.46	7.69	8.23	8.71	9.06
S.D.	3.29	3.34	3.45	3.43	2.90	2.97	3.00	3.16	3.12	3.19	3.28	3.35
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 57
R-290: Abstract Reasoning

15 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	14.0	14.3	14.5	14.7	14.0	14.0	14.3	14.5	14.0	14.2	14.4	14.6
98	13.4	13.8	14.2	14.4	13.4	13.6	13.9	14.2	13.4	13.7	14.1	14.3
95	12.7	13.0	13.4	13.8	12.7	12.9	13.2	13.4	12.7	13.0	13.3	13.6
90	12.0	12.2	12.8	13.2	11.9	12.2	12.4	12.8	11.9	12.2	12.6	13.0
85	11.4	11.7	12.3	12.6	11.3	11.7	11.9	12.2	11.3	11.7	12.1	12.4
80	10.9	11.2	11.8	12.2	10.9	11.2	11.5	11.8	10.9	11.2	11.7	12.0
75	10.4	10.8	11.4	11.8	10.4	10.8	11.1	11.4	10.4	10.8	11.3	11.6
70	10.0	10.5	11.1	11.4	10.0	10.4	10.7	11.0	10.0	10.4	10.9	11.2
60	9.2	9.7	10.3	10.7	9.1	9.7	10.0	10.3	9.2	9.7	10.2	10.5
50	8.4	9.0	9.6	10.0	8.4	8.9	9.3	9.6	8.4	8.9	9.4	9.8
40	7.6	8.2	8.8	9.3	7.5	8.0	8.5	8.8	7.6	8.1	8.7	9.1
30	6.6	7.3	7.9	8.5	6.5	7.0	7.6	8.0	6.5	7.2	7.8	8.2
25	5.9	6.7	7.4	8.0	5.9	6.4	7.0	7.5	5.9	6.6	7.2	7.7
20	5.2	6.1	6.7	7.4	5.3	5.7	6.4	6.9	5.2	5.9	6.5	7.1
15	4.4	5.4	5.9	6.5	4.6	4.9	5.6	6.1	4.5	5.1	5.7	6.3
10	3.6	4.3	4.9	5.5	3.7	4.1	4.5	5.1	3.6	4.2	4.7	5.3
5	2.4	2.8	3.5	3.9	2.3	2.8	3.2	3.7	2.4	2.8	3.3	3.8
2	0.9	1.2	1.6	2.1	1.0	1.5	1.9	2.0	0.9	1.4	1.8	2.0
1	0.3	0.4	0.4	0.5	0.4	0.6	0.9	0.8	0.3	0.5	0.6	0.8
Mean	8.05	8.61	9.19	9.62	8.05	8.48	8.87	9.24	8.05	8.54	9.03	9.43
S.D.	3.16	3.05	3.04	2.98	3.12	3.08	3.00	2.96	3.14	3.06	3.02	2.98
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 58
Mathematics Test
R-311: Part I. Arithmetic Reasoning

16 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	15.0	15.4	15.6	15.8	14.5	15.0	15.4	15.6	14.9	15.2	15.5	15.8
98	14.4	14.8	15.4	15.7	14.0	14.3	15.0	15.2	14.3	14.6	15.2	15.5
95	13.4	13.9	14.7	15.3	13.0	13.5	14.1	14.4	13.2	13.6	14.4	14.9
90	12.4	12.9	13.9	14.6	11.8	12.4	13.1	13.5	12.1	12.7	13.5	14.1
85	11.3	12.1	13.1	14.0	10.8	11.7	12.3	12.8	11.0	11.9	12.7	13.4
80	10.4	11.4	12.4	13.3	10.0	10.9	11.6	12.2	10.2	11.2	12.0	12.7
75	9.8	10.8	11.8	12.7	9.3	10.2	11.0	11.6	9.5	10.5	11.4	12.1
70	9.2	10.2	11.2	12.2	8.7	9.6	10.4	11.0	8.9	9.9	10.8	11.6
60	8.1	9.1	10.1	11.1	7.6	8.4	9.2	9.9	7.8	8.8	9.7	10.5
50	7.1	8.0	9.1	10.0	6.6	7.4	8.1	8.8	6.9	7.7	8.6	9.4
40	6.1	7.0	8.0	9.0	5.8	6.4	7.0	7.7	6.0	6.7	7.5	8.3
30	5.2	6.0	7.0	7.9	5.0	5.4	5.9	6.7	5.1	5.7	6.4	7.2
25	4.8	5.5	6.4	7.2	4.5	4.9	5.3	6.1	4.6	5.2	5.8	6.6
20	4.2	4.9	5.8	6.5	4.0	4.4	4.8	5.4	4.1	4.6	5.2	5.9
15	3.7	4.3	5.0	5.6	3.5	3.8	4.2	4.8	3.6	4.1	4.6	5.1
10	3.0	3.6	4.2	4.7	2.9	3.2	3.6	4.1	3.0	3.4	3.8	4.3
5	2.0	2.7	3.0	3.4	2.2	2.4	2.7	3.0	2.1	2.6	2.8	3.2
2	1.1	1.7	1.8	2.0	1.3	1.5	1.8	1.8	1.2	1.6	1.8	1.9
1	0.5	0.9	1.0	0.7	0.8	0.7	1.3	0.9	0.6	0.9	1.1	0.8
Mean	7.35	8.13	9.02	9.81	7.01	7.61	8.20	8.77	7.18	7.86	8.60	9.27
S.D.	3.45	3.46	3.57	3.67	3.28	3.44	3.55	3.54	3.37	3.46	3.58	3.64
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7352	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 59
Mathematics Test
R-312: Part II. Introductory High School Mathematics

24 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	20.8	21.7	23.1	23.6	19.4	20.3	22.5	22.6	20.2	21.1	22.9	23.3
98	19.4	20.7	22.4	23.2	18.1	19.2	21.6	21.5	18.8	19.9	22.1	22.6
95	17.0	18.5	21.1	22.0	16.3	17.4	19.4	19.8	16.6	18.0	22.5	21.2
90	15.0	16.4	19.3	20.6	14.6	15.5	17.4	17.7	14.8	16.0	18.5	19.4
85	13.6	15.0	18.0	19.3	13.5	14.3	15.5	16.0	13.5	14.6	16.9	17.7
80	12.7	13.8	16.7	17.9	12.5	13.3	14.2	14.3	12.6	13.5	15.5	16.4
75	11.8	12.9	15.6	16.8	11.8	12.5	13.1	13.1	11.8	12.6	14.4	15.1
70	11.0	12.0	14.6	15.8	11.2	11.7	12.1	12.1	11.1	11.9	13.3	13.9
60	9.8	10.6	12.5	13.7	10.0	10.4	10.4	10.6	9.9	10.5	11.4	11.8
50	8.8	9.5	10.8	11.7	8.9	9.2	9.2	9.3	8.9	9.3	9.9	10.3
40	7.8	8.4	9.4	10.0	8.0	8.2	8.2	8.3	7.9	8.3	8.6	9.0
30	6.7	7.3	7.9	8.6	7.1	7.2	7.1	7.3	6.9	7.2	7.5	7.8
25	6.2	6.8	7.2	7.9	6.6	6.7	6.6	6.8	6.4	6.7	6.9	7.2
20	5.7	6.2	6.6	7.2	6.0	6.1	6.0	6.2	5.8	6.2	6.3	6.6
15	5.1	5.6	5.9	6.3	5.5	5.5	5.4	5.6	5.3	5.6	5.6	5.9
10	4.3	4.7	5.1	5.4	4.7	4.7	4.6	4.8	4.5	4.7	4.8	5.0
5	3.3	3.7	3.9	4.1	3.6	3.6	3.5	3.7	3.5	3.6	3.7	3.9
2	1.9	2.5	2.6	2.7	2.4	2.3	2.4	2.3	2.2	2.4	2.5	2.5
1	0.9	1.5	1.5	0.8	1.6	1.2	1.7	1.3	1.3	1.5	1.6	1.2
Mean	9.24	10.05	11.55	12.38	9.35	9.71	10.10	10.25	9.29	9.88	10.81	11.27
S.D.	4.18	4.49	5.36	5.63	3.85	4.18	4.82	4.85	4.02	4.34	5.14	5.34
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 60
Mathematics Test
R-320: Subtotal (Parts I + II)

40 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	34.3	35.9	37.9	38.9	32.5	33.9	37.1	37.0	33.5	35.0	37.5	38.4
98	32.5	34.4	36.9	38.1	30.9	32.1	35.7	35.4	31.8	33.5	36.4	37.3
95	29.4	31.3	35.0	36.3	28.2	29.5	32.7	33.2	28.8	30.4	34.0	35.2
90	26.4	28.5	32.4	34.6	25.7	27.0	29.2	30.2	26.0	27.7	31.2	32.7
85	24.3	26.2	30.4	32.5	23.5	25.0	26.6	27.6	23.9	25.6	28.7	30.4
80	22.5	24.5	28.4	30.6	21.8	23.6	25.0	25.7	22.2	24.0	26.7	28.3
75	21.1	23.0	26.9	28.9	20.5	22.1	23.4	24.0	20.8	22.6	25.0	26.5
70	19.8	21.8	25.2	27.3	19.3	20.8	22.0	22.6	19.5	21.3	23.4	24.9
60	17.6	19.4	22.3	24.5	17.3	18.6	19.5	20.1	17.4	19.0	20.8	22.0
50	15.8	17.3	19.8	21.6	15.5	16.5	17.2	18.1	15.6	16.9	18.5	19.5
40	14.1	15.4	17.5	19.1	14.1	14.7	15.4	16.2	14.1	15.1	16.3	17.4
30	12.3	13.7	15.4	16.9	12.4	13.0	13.4	14.3	12.4	13.4	14.3	15.4
25	11.4	12.8	14.2	15.7	11.6	12.2	12.4	13.4	11.5	12.5	13.2	14.3
20	10.4	11.8	13.1	14.3	10.7	11.2	11.6	12.5	10.6	11.5	12.2	13.2
15	9.5	10.7	11.8	12.8	9.8	10.2	10.5	11.3	9.6	10.4	11.2	12.0
10	8.3	9.5	10.4	11.3	8.7	9.0	9.3	9.8	8.5	9.2	9.8	10.5
5	6.7	7.8	8.4	8.9	7.2	7.4	7.6	8.1	6.9	7.6	7.9	8.4
2	4.9	5.8	6.2	6.3	5.6	5.5	5.8	6.2	5.2	5.7	5.9	6.2
1	3.5	4.5	4.2	2.5	4.5	4.0	4.6	4.8	3.8	4.2	4.5	4.5
Mean	16.59	18.18	20.58	22.18	16.36	17.32	18.29	19.03	16.48	17.74	19.41	20.53
S.D.	6.96	7.23	8.23	8.64	6.42	6.87	7.61	7.59	6.70	7.07	8.00	8.26
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 61
Mathematics Test
R-333: Part III. Advanced High School Mathematics

14 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	7.0	8.3	11.2	12.9	6.2	7.3	9.9	10.4	6.6	7.8	10.6	12.1
98	6.3	7.4	10.3	12.1	5.5	6.6	8.9	9.2	6.0	7.1	9.8	11.2
95	5.3	6.4	9.0	10.6	4.8	5.8	6.4	7.6	5.1	6.1	8.3	9.4
90	4.5	5.5	7.7	9.0	4.1	5.0	6.1	6.2	4.3	5.3	7.0	7.7
85	4.1	5.0	6.8	7.9	3.7	4.5	5.3	5.4	3.9	4.7	6.1	6.5
80	3.7	4.5	6.1	6.9	3.4	4.1	4.7	4.8	3.5	4.3	5.4	5.7
75	3.4	4.2	5.4	6.2	3.1	3.8	4.2	4.3	3.3	4.0	4.8	5.1
70	3.2	3.9	5.0	5.5	2.9	3.5	3.9	4.0	3.0	3.7	4.4	4.6
60	2.7	3.3	4.2	4.6	2.4	3.0	3.2	3.3	2.5	3.1	3.7	3.8
50	2.2	2.8	3.5	3.8	2.0	2.5	2.7	2.8	2.1	2.6	3.1	3.2
40	1.8	2.3	2.9	3.1	1.6	2.0	2.2	2.2	1.7	2.2	2.5	2.6
30	1.3	1.8	2.3	2.5	1.2	1.6	1.7	1.7	1.3	1.7	2.0	2.0
25	1.1	1.6	2.0	2.2	1.0	1.3	1.4	1.4	1.0	1.4	1.7	1.7
20	0.8	1.2	1.7	1.8	0.7	1.0	1.1	1.1	0.8	1.1	1.4	1.4
15	0.6	0.9	1.3	1.5	0.5	0.7	0.8	0.8	0.5	0.8	1.0	1.0
10	0.4	0.5	0.8	0.9	0.3	0.5	0.5	0.4	0.4	0.5	0.6	0.6
5	0.2	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Mean	2.36	2.96	3.91	4.41	2.12	2.63	3.04	3.10	2.24	2.79	3.47	3.73
S.D.	1.66	1.93	2.62	3.05	1.49	1.74	2.22	2.31	1.58	1.85	2.47	2.77
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 62
Mathematics Test
R-334: High School Subtotal (Parts II + III)

38 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	26.0	28.8	33.3	35.6	23.5	25.9	31.8	32.5	25.0	27.5	32.5	34.5
98	23.9	26.5	31.9	34.4	21.7	24.6	29.6	30.2	22.8	25.6	31.2	33.1
95	20.5	23.9	29.4	32.1	19.2	21.8	26.4	26.5	19.9	22.9	28.2	30.2
90	17.9	21.0	26.6	29.2	17.1	19.4	22.6	23.0	17.4	20.2	25.0	26.6
85	16.3	18.9	24.3	26.8	15.8	17.8	20.0	20.7	16.0	18.4	22.5	23.8
80	15.2	17.5	22.5	24.7	14.9	16.7	18.1	18.7	15.1	17.1	20.4	21.7
75	14.4	16.3	20.6	22.6	14.2	15.6	16.6	16.8	14.2	16.0	18.5	19.8
70	13.5	15.3	19.0	20.9	13.5	14.6	15.3	15.4	13.5	15.0	17.0	18.0
60	12.3	13.5	16.2	17.8	12.3	13.0	13.3	13.5	12.3	13.3	14.6	15.3
50	11.1	12.1	14.1	15.3	11.2	11.7	11.7	12.0	11.1	11.9	12.8	13.2
40	10.0	10.9	12.3	12.9	10.1	10.5	10.4	10.7	10.0	10.7	11.1	11.6
30	8.9	9.6	10.5	11.3	9.1	9.3	9.3	9.4	9.0	9.5	9.8	10.2
25	8.3	8.9	9.7	10.5	8.5	8.6	8.6	8.7	8.4	8.8	9.1	9.4
20	7.6	8.2	8.9	9.5	7.8	8.0	7.9	8.0	7.7	8.1	8.3	8.6
15	6.9	7.5	8.0	8.5	7.1	7.2	7.1	7.2	7.0	7.4	7.5	7.7
10	6.0	6.6	6.9	7.3	6.1	6.3	6.2	6.3	6.0	6.4	6.6	6.7
5	4.5	5.1	5.4	5.7	4.8	4.9	4.6	4.7	4.6	5.0	5.0	5.2
2	2.8	3.7	3.6	3.8	3.4	3.5	3.2	3.0	3.0	3.6	3.4	3.4
1	1.2	2.5	1.2	1.5	2.2	1.8	2.2	1.8	1.7	2.2	2.3	1.8
Mean	11.60	13.01	15.46	16.79	11.47	12.34	13.14	13.35	11.53	12.67	14.28	14.99
S.D.	4.90	5.68	7.45	8.22	4.38	5.15	6.47	6.60	4.65	5.43	7.06	7.61
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 63
Mathematics Test
R-340: Total (Parts I + II + III)

54 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	39.5	42.8	48.2	50.9	36.3	39.2	45.8	46.8	38.2	41.2	47.2	49.5
98	36.9	40.5	46.2	49.5	34.1	37.2	43.6	44.0	35.7	38.8	45.2	47.6
95	32.9	36.8	43.1	46.4	30.8	34.0	39.5	39.8	31.8	35.5	41.7	44.0
90	29.5	32.9	39.6	43.0	28.0	30.7	34.5	35.5	28.6	31.9	37.6	39.7
85	26.7	30.3	36.8	40.0	25.8	28.5	31.0	32.3	26.2	29.3	34.1	36.3
80	25.0	28.1	34.0	37.2	24.0	26.8	28.7	29.7	24.5	27.3	31.4	33.6
75	23.5	26.3	31.7	34.7	22.6	25.2	26.8	27.5	23.1	25.8	29.2	31.2
70	22.2	25.0	29.6	32.5	21.6	23.5	25.0	25.9	21.8	24.3	27.2	29.0
60	19.9	22.3	26.0	28.8	19.5	21.1	22.1	23.0	19.7	21.6	23.9	25.3
50	18.1	19.8	23.0	24.9	17.7	19.0	19.7	20.5	17.9	19.4	21.2	22.4
40	16.3	17.8	20.3	21.9	16.0	17.0	17.4	18.4	16.1	17.4	18.8	20.0
30	14.4	16.0	17.8	19.5	14.5	15.2	15.5	16.5	14.4	15.6	16.5	17.7
25	13.6	15.0	16.6	18.2	13.6	14.2	14.6	15.5	13.6	14.6	15.4	16.5
20	12.5	14.0	15.4	16.8	12.5	13.2	13.6	14.4	12.5	13.6	14.3	15.3
15	11.4	12.8	14.1	15.0	11.5	12.0	12.3	13.0	11.4	12.4	13.1	13.8
10	10.1	11.4	12.5	13.2	10.1	10.8	10.9	11.6	10.1	11.0	11.5	12.2
5	8.2	9.5	10.2	10.9	8.4	8.9	8.9	9.4	8.3	9.1	9.5	10.0
2	5.8	7.2	7.1	7.5	6.2	6.5	6.6	7.3	6.0	6.9	6.8	7.3
1	2.5	5.5	5.2	2.0	4.0	4.5	4.8	5.0	3.5	4.8	5.0	4.5
Mean	18.90	21.11	24.47	26.58	18.40	19.91	21.27	22.10	18.65	20.51	22.84	24.24
S.D.	7.59	8.36	10.23	11.14	6.93	7.77	9.19	9.23	7.27	8.09	9.85	10.43
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14598	12979

TABLE 3-2 (continued)

Table 3-2. Part 64
F-410: Arithmetic Computation

72 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	52.5	54.5	58.5	63.3	55.5	56.2	60.5	62.5	54.5	55.3	59.2	63.2
98	50.2	52.2	55.5	59.8	53.0	54.0	57.0	59.2	51.4	53.2	56.5	59.3
95	46.0	47.5	51.1	54.9	49.3	50.4	52.4	54.9	47.8	49.5	51.8	54.9
90	41.9	43.2	47.1	50.8	45.6	46.5	49.3	51.0	43.8	45.4	48.2	51.0
85	39.0	40.3	44.3	48.3	42.7	44.0	46.7	49.1	41.3	42.4	45.8	48.7
80	37.0	38.0	42.1	45.9	40.9	42.1	44.7	46.7	38.9	40.2	43.2	46.3
75	35.1	36.5	40.2	43.4	38.9	40.2	42.4	44.9	37.2	38.2	41.4	44.3
70	33.2	34.7	38.2	41.8	37.3	38.4	40.8	42.8	35.4	36.7	39.4	42.4
60	29.8	31.4	34.9	38.4	34.2	35.2	37.4	39.5	32.2	33.4	36.2	38.9
50	26.1	28.3	31.8	34.7	31.2	32.1	34.2	36.5	28.8	30.2	33.0	35.8
40	22.4	24.5	28.3	31.4	27.7	28.8	30.6	33.3	24.9	26.7	29.4	32.4
30	17.3	20.6	24.0	26.9	23.5	24.6	26.4	29.2	20.5	22.5	25.3	28.2
25	13.8	18.3	21.3	24.5	20.4	22.3	24.0	27.0	17.3	20.0	22.7	25.8
20	9.7	14.6	18.3	21.5	17.3	18.9	21.2	24.2	13.7	16.8	19.6	23.1
15	4.2	9.5	14.0	17.0	13.4	14.5	17.3	20.4	8.7	11.9	15.7	18.8
10	-7.2	1.2	7.6	11.5	6.4	7.1	10.8	14.4	0.0	4.5	9.2	13.0
5	-35.5	-18.5	-6.5	-2.2	-9.8	-4.8	0.0	2.5	-23.0	-10.5	-2.8	0.2
2	-78.5	-62.5	-36.5	-31.0	-38.0	-28.0	-18.5	-12.5	-63.5	-47.0	-28.0	-21.5
1	-103.5	-88.5	-67.5	-51.0	-64.5	-55.5	-39.0	-37.0	-89.5	-74.5	-56.0	-46.0
Mean	19.43	23.21	27.93	31.65	26.89	28.46	31.07	33.69	23.17	25.84	29.53	32.72
S.D.	27.92	24.31	21.18	20.19	21.24	19.75	18.87	18.36	25.08	22.29	20.10	19.28
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 65
F-420: Table Reading

72 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	30.0	53.0	55.5	59.5	31.5	45.0	40.0	41.0	30.5	47.5	47.5	52.0
98	22.0	35.5	37.5	43.0	24.5	32.0	30.5	31.5	23.2	34.5	34.5	37.0
95	16.4	23.2	24.1	28.0	18.2	20.8	21.1	23.1	17.5	21.7	22.5	25.2
90	13.4	16.6	18.0	19.9	14.8	16.7	17.2	18.6	14.1	16.7	17.6	19.2
85	11.9	14.1	15.5	17.0	13.2	14.9	15.4	16.5	12.5	14.5	15.4	16.7
80	10.8	12.6	14.1	15.3	12.1	13.6	14.2	15.1	11.5	13.2	14.1	15.2
75	9.8	11.6	13.0	14.0	11.3	12.7	13.3	14.1	10.7	12.3	13.2	14.1
70	9.0	10.8	12.2	13.0	10.6	12.0	12.6	13.3	9.9	11.5	12.4	13.2
60	7.6	9.3	10.8	11.6	9.3	10.8	11.5	12.2	8.5	10.1	11.2	11.9
50	6.5	8.0	9.5	10.3	8.1	9.6	10.6	11.1	7.3	8.9	10.1	10.8
40	5.2	6.7	8.3	9.1	6.9	8.4	9.4	10.1	6.0	7.5	8.8	9.7
30	3.5	5.1	6.8	7.8	5.5	7.1	8.1	8.9	4.6	6.2	7.4	8.4
25	2.3	4.3	5.9	7.1	4.7	6.4	7.3	8.3	3.6	5.3	6.7	7.8
20	0.8	3.2	4.9	6.2	3.6	5.5	6.6	7.6	2.2	4.2	5.8	6.9
15	-1.2	1.4	3.6	5.1	2.2	4.2	5.6	6.6	0.6	2.8	4.6	5.9
10	-5.1	-1.4	1.5	3.5	0.3	2.1	4.0	5.3	-1.8	0.2	2.6	4.3
5	-14.2	-9.2	-3.4	-0.4	-3.0	-1.8	0.1	2.2	-8.8	-4.4	-1.4	0.8
2	-32.5	-29.8	-16.0	-6.5	-12.5	-9.0	-4.8	-2.2	-25.0	-19.5	-9.5	-4.2
1	-42.0	-39.8	-30.0	-19.5	-25.0	-17.0	-10.0	-5.2	-37.5	-32.5	-21.0	-11.5
Mean	4.89	7.66	9.75	11.34	7.73	9.71	10.69	11.78	6.32	8.69	10.23	11.57
S.D.	11.27	12.19	11.12	11.14	8.86	9.24	8.18	7.97	10.23	10.86	9.74	9.62
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 66
F-430: Clerical Checking

74 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	69.5	72.0	70.3	71.0	70.2	72.0	71.0	73.6	69.9	72.0	70.4	73.5
98	65.5	69.7	69.0	69.7	66.2	69.8	69.8	70.1	65.9	69.8	69.7	69.9
95	53.6	61.5	60.5	61.8	57.0	61.8	62.0	62.5	54.5	61.6	61.7	62.2
90	40.5	48.8	49.2	52.1	46.3	50.8	52.7	54.5	43.5	49.9	50.4	53.8
85	33.7	39.8	41.7	45.6	39.5	44.7	46.3	49.2	37.0	42.8	44.5	47.2
80	29.7	34.3	37.3	39.8	35.5	40.6	42.3	44.3	33.1	38.0	40.4	42.5
75	26.7	30.9	33.7	36.3	32.7	37.3	39.9	41.2	30.0	34.6	37.4	39.4
70	24.4	28.4	30.9	33.4	30.3	34.7	37.4	38.9	27.7	31.7	34.5	36.8
60	20.3	24.3	26.9	28.9	26.5	30.4	33.0	35.1	23.5	27.2	30.2	32.5
50	16.7	20.7	23.2	25.5	23.0	27.1	29.6	31.6	19.7	23.9	26.6	28.7
40	13.4	17.1	20.2	21.8	19.1	23.6	26.2	28.3	16.0	20.3	22.6	25.3
30	8.6	12.6	16.1	17.9	14.9	19.8	21.7	24.8	11.8	16.0	18.6	21.2
25	5.7	10.4	13.8	15.4	12.3	17.4	19.1	22.6	8.8	13.2	16.3	18.8
20	2.0	6.8	10.5	12.5	8.9	14.3	16.3	20.0	5.3	10.3	13.1	16.0
15	-2.5	2.4	6.7	8.5	4.7	10.1	12.2	16.4	1.0	5.9	9.0	12.2
10	-9.2	-3.7	-0.1	3.4	-0.8	3.8	6.1	11.1	-5.0	-0.4	2.8	6.5
5	-23.2	-15.2	-9.8	-4.8	-11.2	-6.8	-2.5	1.0	-16.8	-11.2	-6.8	-2.3
2	-40.0	-34.5	-26.5	-16.5	-25.0	-21.0	-16.0	-11.5	-33.5	-28.0	-22.0	-14.5
1	-53.0	-46.5	-42.0	-28.5	-34.5	-32.5	-25.0	-21.0	-48.0	-41.5	-33.0	-24.5
Mean	15.68	20.61	23.36	25.98	22.33	26.81	29.09	31.66	19.01	23.73	26.27	28.95
S.D.	21.79	21.82	20.62	19.63	19.88	19.78	18.97	18.10	21.12	21.05	20.01	19.06
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 67
F-440: Object Inspection

40 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	38.5	39.6	39.7	39.7	38.4	38.4	38.5	39.6	38.4	39.5	39.6	39.7
98	37.9	38.2	38.5	38.4	37.6	37.6	37.8	38.2	37.8	38.0	38.3	38.4
95	34.2	35.9	37.4	36.4	33.5	34.4	35.3	35.6	33.9	35.4	36.1	36.0
90	29.1	31.7	33.1	33.3	29.3	31.1	32.0	32.3	29.2	31.4	32.4	32.8
85	26.3	28.5	30.0	30.8	26.9	29.0	29.9	30.3	26.5	28.8	30.0	30.4
80	24.9	26.4	27.9	28.6	25.8	27.1	28.2	28.7	25.5	26.7	28.6	28.7
75	23.5	25.2	26.4	26.8	24.9	26.0	26.9	27.2	24.3	25.7	26.6	27.1
70	22.5	24.0	25.4	25.8	24.0	25.7	26.0	26.3	23.3	24.7	25.8	26.1
60	20.2	21.8	23.5	23.9	22.1	23.4	24.3	24.9	21.2	22.7	24.0	24.4
50	18.3	19.9	21.5	22.0	20.3	21.7	22.7	23.2	19.4	20.8	22.1	22.6
40	16.8	18.0	19.7	20.0	18.5	19.9	20.9	21.3	17.6	18.9	20.3	20.6
30	15.1	16.4	17.6	18.0	16.8	17.9	19.0	19.4	16.0	17.1	18.3	18.7
25	14.1	15.4	16.7	17.0	15.9	17.0	18.0	18.3	15.0	16.2	17.3	17.6
20	12.9	14.3	15.6	16.0	14.8	16.0	16.9	17.2	13.8	15.1	16.2	16.6
15	11.3	13.0	14.2	14.6	13.3	14.8	15.5	16.0	12.3	13.9	14.8	15.3
10	9.2	11.3	12.5	12.8	11.6	13.2	13.8	14.2	10.3	12.1	13.1	13.5
5	5.2	7.6	9.5	9.8	8.3	9.6	11.1	11.2	6.7	8.5	10.3	10.5
2	-2.0	0.1	0.5	3.5	1.0	3.2	6.5	6.0	-0.1	0.5	4.0	5.0
1	-10.5	-4.5	-0.5	-0.3	-1.0	-1.0	0.5	0.0	-4.5	-2.5	-0.2	-0.2
Mean	18.61	20.26	21.75	22.13	20.25	21.55	22.54	22.91	19.43	20.91	22.15	22.54
S.D.	8.82	8.74	8.34	8.22	7.62	7.68	7.43	7.53	8.28	8.25	7.90	7.88
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 68
C-001: IQ Composite

Maximum Score: 283

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	255.5	257.0	265.5	270.0	252.0	256.5	263.0	266.5	253.5	257.0	264.5	269.0
98	246.5	251.8	260.2	266.8	243.5	248.5	257.5	262.2	245.5	250.5	258.5	264.8
95	232.5	241.5	251.5	259.7	231.5	238.2	248.7	252.5	232.0	239.5	250.0	256.0
90	216.5	228.0	240.5	249.2	216.5	225.5	236.9	242.9	216.5	226.5	238.7	245.9
85	204.2	217.5	231.0	241.5	204.8	216.5	228.0	234.2	204.5	216.9	229.6	238.3
80	193.0	208.3	223.2	233.8	194.5	207.5	220.2	228.5	193.8	208.0	221.8	231.0
75	183.8	199.5	215.9	227.9	186.4	199.9	212.1	221.5	185.2	199.8	214.1	224.3
70	175.3	190.3	208.9	221.4	177.7	192.7	205.0	215.4	176.5	191.7	206.5	217.9
60	159.0	174.5	195.4	208.7	161.1	179.0	190.3	203.1	160.0	176.8	193.1	205.8
50	142.7	160.5	181.6	194.1	146.0	163.3	175.6	188.5	144.6	161.8	178.6	190.9
40	126.6	144.2	165.6	178.2	131.3	147.7	160.2	172.8	128.9	145.7	162.9	175.4
30	111.2	128.1	147.7	160.8	115.4	131.7	143.2	157.1	113.5	129.8	145.5	158.8
25	102.1	119.8	138.1	151.8	107.1	122.5	134.9	148.1	104.8	121.1	136.3	150.0
20	92.0	111.3	127.5	141.8	98.9	112.7	123.9	138.5	96.0	112.0	126.0	140.1
15	82.8	100.5	114.9	127.5	89.5	101.0	113.0	126.2	86.5	100.7	114.2	126.7
10	71.5	85.2	99.5	111.5	78.3	88.2	99.6	110.8	75.2	86.8	99.5	111.0
5	57.5	67.5	78.5	86.5	62.8	70.5	80.5	90.5	60.2	69.5	79.5	88.5
2	43.5	49.5	54.5	64.5	48.0	55.5	61.5	64.5	45.5	52.5	59.0	64.5
1	35.5	40.5	42.5	51.0	36.0	47.5	53.0	55.0	35.5	42.5	47.5	53.5
Mean	143.33	158.11	174.58	186.42	146.59	159.97	171.52	181.97	144.96	159.04	173.02	184.10
S.D.	53.88	52.97	53.34	52.59	51.76	51.32	51.56	50.39	52.85	52.16	52.46	51.50
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 69
C-002: General Academic Aptitude Composite

Maximum Score: 829

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	704.0	726.0	755.5	769.5	694.0	715.0	755.5	758.5	700.0	721.0	756.0	762.5
98	680.5	701.5	739.5	758.2	669.5	691.5	734.5	744.5	676.0	697.0	737.0	753.5
95	635.0	666.5	709.5	733.0	637.0	662.0	701.5	711.5	636.0	663.5	706.5	722.5
90	592.0	631.5	675.8	704.2	601.5	627.5	663.5	680.0	598.5	628.5	669.0	692.5
85	562.2	600.5	649.5	677.5	576.5	605.5	637.8	655.5	569.0	604.0	643.5	666.5
80	540.5	577.5	626.8	657.8	553.3	586.5	615.8	632.8	547.2	582.0	621.8	645.0
75	522.2	555.2	605.5	637.2	534.2	567.5	596.5	615.2	527.8	562.2	601.2	625.2
70	503.5	536.8	585.2	618.2	515.2	550.8	576.5	598.5	510.0	544.2	581.5	606.8
60	467.8	500.2	549.5	579.0	483.5	518.7	545.2	568.0	475.8	510.5	547.0	572.5
50	435.2	469.2	516.8	546.5	452.5	488.2	513.2	537.5	444.8	479.5	514.8	541.8
40	401.2	436.8	481.8	512.9	425.8	458.0	481.5	506.5	414.8	447.8	481.5	509.2
30	367.8	407.5	445.2	476.0	394.7	426.2	449.5	476.0	382.8	416.2	447.5	476.2
25	347.9	390.2	427.5	456.5	380.5	410.0	431.3	456.7	365.2	399.8	429.5	456.5
20	327.5	369.5	405.2	436.0	361.5	389.2	412.8	439.0	345.5	381.2	410.2	438.0
15	305.5	348.0	380.5	405.8	343.5	370.5	392.5	416.5	323.0	358.5	386.0	412.0
10	279.0	316.5	348.2	373.2	318.5	341.5	365.5	389.0	295.8	328.0	356.5	380.5
5	246.5	268.5	305.2	327.5	276.5	300.0	319.5	350.5	259.5	284.5	311.5	337.5
2	206.0	221.0	247.0	270.5	235.0	254.5	281.5	295.0	218.0	238.0	265.5	284.5
1	179.0	200.5	217.0	213.0	208.5	218.5	249.5	256.5	190.0	204.5	229.5	229.0
Mean	435.30	470.65	512.60	540.76	455.87	485.49	512.67	534.08	445.62	478.10	512.64	537.27
S.D.	120.04	119.46	125.07	125.99	109.70	111.81	114.93	112.58	115.43	115.92	120.02	119.22
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 70
C-003: Verbal Composite

Maximum Score: 167

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	144.5	148.5	153.8	154.8	145.5	149.5	154.8	156.5	145.2	149.2	154.2	155.8
98	139.5	144.5	150.0	152.7	141.8	146.5	152.5	154.0	141.0	145.5	151.5	153.4
95	131.9	138.5	143.7	148.5	134.7	140.9	147.0	149.6	133.8	139.6	145.7	149.0
90	125.6	132.4	137.8	142.7	129.3	135.3	141.8	145.9	127.6	133.9	139.9	144.6
85	121.0	128.0	133.6	138.3	125.1	131.1	137.7	142.6	123.3	129.8	135.8	140.8
80	117.2	123.9	130.2	134.6	121.8	128.2	134.0	139.4	119.4	126.4	132.4	137.4
75	114.1	120.5	127.1	131.6	118.4	125.2	131.4	136.8	116.3	122.9	129.2	134.6
70	111.1	117.3	124.3	129.0	115.6	122.1	128.4	134.3	113.3	119.9	126.4	131.7
60	105.4	112.0	119.3	124.1	110.1	117.1	123.1	129.3	107.8	114.6	121.2	126.7
50	99.9	106.7	114.0	118.8	104.7	112.0	118.1	124.4	102.3	109.7	116.2	121.7
40	94.2	101.8	109.2	114.1	99.7	107.6	113.1	119.0	97.3	104.4	110.9	116.5
30	88.0	96.0	103.1	108.4	94.7	101.7	107.0	113.2	91.7	98.8	105.1	110.9
25	84.3	92.6	99.5	105.1	91.8	98.4	103.9	110.1	88.3	95.5	101.9	107.7
20	79.5	89.2	95.8	101.4	88.6	94.7	100.7	106.3	84.4	91.7	98.2	103.6
15	75.6	84.4	91.3	96.5	84.5	90.6	96.7	101.4	79.2	87.6	94.0	99.2
10	69.6	78.7	85.0	90.3	79.0	85.0	91.2	95.8	74.1	81.6	88.3	93.4
5	60.2	67.0	74.5	80.1	70.5	75.5	82.3	87.9	64.5	71.5	78.5	84.2
2	49.0	53.2	62.5	66.5	59.0	65.0	72.0	77.5	52.0	57.5	66.5	72.0
1	42.0	45.0	51.0	50.0	50.0	53.0	63.5	63.0	45.5	46.5	56.5	55.5
Mean	98.42	105.51	112.26	117.08	104.24	110.71	116.77	122.06	101.34	108.12	114.55	119.68
S.D.	22.21	21.72	21.33	21.29	20.14	20.42	20.08	20.09	21.40	21.24	20.83	20.82
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 71
C-004: Quantitative Composite

Maximum Score: 246

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	178.0	194.5	220.0	232.5	158.5	174.5	208.0	214.0	171.0	186.5	216.0	226.5
98	164.5	183.5	211.5	225.5	148.5	166.5	199.2	201.0	156.5	175.5	207.0	218.0
95	145.0	165.3	196.8	212.5	132.8	151.8	180.2	181.0	139.5	158.5	191.0	202.0
90	128.5	147.3	181.5	197.2	119.2	136.7	157.0	159.8	123.5	141.7	172.2	181.8
85	116.9	135.7	168.3	183.5	111.1	125.8	139.0	144.8	113.7	130.9	155.8	165.5
80	108.8	126.1	155.8	170.8	103.9	118.0	127.2	132.2	106.1	121.5	142.2	152.1
75	101.5	117.7	145.1	160.1	97.6	109.8	117.3	120.0	99.7	114.0	130.7	140.7
70	96.0	110.4	134.3	148.1	92.1	102.4	109.4	110.8	94.0	106.4	121.5	129.5
60	86.3	97.9	115.9	128.3	83.3	90.4	94.1	96.2	84.9	94.1	105.1	109.6
50	78.2	86.1	101.5	109.6	75.5	80.7	82.9	85.7	76.9	83.2	90.8	95.6
40	70.1	77.2	88.1	95.8	68.4	72.2	73.6	76.8	69.1	74.8	79.8	84.3
30	62.4	69.2	76.5	83.4	61.8	64.4	66.0	68.5	62.1	66.7	70.6	74.5
25	58.7	65.0	71.7	77.8	58.1	60.8	61.8	64.3	58.4	62.7	65.9	69.3
20	54.7	60.4	66.0	71.4	54.1	56.4	57.8	60.0	54.4	58.5	61.1	64.2
15	49.6	55.4	60.4	64.8	49.4	51.9	53.0	55.2	49.5	53.3	56.1	58.8
10	44.6	49.5	53.8	56.9	44.1	46.2	47.0	49.4	44.3	47.9	50.1	52.1
5	36.9	41.7	44.2	47.3	37.4	38.5	39.1	40.1	37.2	40.0	41.0	43.5
2	27.5	32.5	32.5	36.5	28.8	29.5	31.0	31.5	28.0	31.5	31.5	32.5
1	17.5	27.0	25.0	25.5	23.5	23.0	25.0	24.0	21.5	25.5	25.0	24.5
Mean	82.51	93.28	109.62	119.23	79.24	86.56	93.01	95.71	80.87	89.91	101.17	106.94
S.D.	33.31	38.16	48.12	52.26	29.68	34.91	42.55	42.94	31.58	36.72	46.12	49.04
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 72
C-005: Technical Composite

Maximum Score: 98

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	85.5	88.0	90.5	92.1	64.2	64.8	70.5	73.5	81.5	85.2	88.2	90.5
98	81.8	85.3	88.3	90.7	60.1	61.5	66.0	68.2	77.5	80.8	85.0	87.2
95	75.7	79.4	83.6	86.4	54.0	56.4	59.7	62.5	69.9	73.5	78.5	81.7
90	69.6	73.6	78.5	82.0	49.2	51.5	53.9	56.8	62.8	66.0	71.5	75.3
85	65.6	69.1	74.7	78.8	45.6	48.3	50.1	52.6	58.2	61.3	66.3	69.9
80	62.1	65.6	71.1	75.5	43.3	45.8	47.4	49.3	53.9	57.6	62.2	65.6
75	59.3	62.6	68.2	72.4	41.1	43.6	45.1	46.8	50.8	54.4	58.6	61.7
70	56.7	60.3	65.7	69.8	39.1	41.5	42.9	44.3	48.0	51.6	55.6	58.2
60	51.8	56.0	60.7	64.9	35.6	37.6	38.9	40.3	43.0	46.6	49.9	51.8
50	47.3	51.7	56.5	59.9	32.6	34.7	35.5	36.7	38.7	42.2	44.8	46.1
40	42.7	47.5	52.1	54.8	29.9	32.0	32.5	33.7	34.7	37.9	39.8	41.2
30	38.1	43.2	47.5	49.4	27.2	29.0	29.6	30.5	30.8	33.9	35.2	36.4
25	35.8	40.9	44.8	46.8	25.8	27.4	28.1	28.9	29.1	31.8	32.9	34.2
20	33.0	38.4	41.8	43.8	24.3	26.0	26.6	27.3	27.1	29.5	30.6	31.6
15	30.1	35.4	38.6	40.7	22.5	24.1	24.9	25.4	25.0	27.1	28.2	28.9
10	26.9	31.4	34.7	37.0	20.5	22.1	22.6	23.2	22.3	24.3	25.6	26.3
5	22.1	25.1	29.4	31.2	17.4	18.9	19.6	20.3	19.2	20.8	21.7	22.5
2	18.5	20.5	22.5	25.3	13.5	15.6	16.2	17.3	15.5	16.8	18.0	18.9
1	16.2	17.2	18.9	21.2	11.2	13.8	14.5	15.2	13.0	14.8	15.7	16.5
Mean	47.85	51.99	56.45	59.48	33.88	35.86	37.16	38.56	40.84	43.89	46.64	48.54
S.D.	16.18	15.97	16.46	17.00	11.31	11.44	12.27	12.93	15.60	16.06	17.40	18.29
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 73
C-006: Scientific Aptitude Composite

Maximum Score: 1063

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	840.5	870.0	937.0	968.0	731.0	765.0	842.5	852.0	815.0	838.5	908.0	939.5
98	804.5	837.5	905.0	940.5	696.5	735.0	801.5	820.5	766.0	806.0	877.0	908.0
95	740.5	784.5	857.5	892.0	651.0	692.5	744.0	767.5	695.5	740.5	816.0	851.5
90	678.5	726.5	801.0	847.5	600.0	639.5	690.5	710.5	640.5	689.0	753.0	796.0
85	636.5	688.0	757.0	811.5	564.5	605.5	646.0	668.5	601.5	646.5	707.0	747.5
80	603.5	654.5	721.5	776.5	536.8	576.0	610.0	639.8	570.5	613.5	674.0	710.5
75	575.5	620.2	692.0	744.2	507.5	551.0	584.0	612.5	541.5	585.5	641.5	675.0
70	547.2	593.8	668.0	715.8	483.2	524.5	560.5	587.5	514.5	559.5	613.0	646.0
60	496.5	545.5	616.8	660.5	443.5	481.8	514.0	541.5	467.0	512.2	564.0	596.5
50	450.2	501.5	568.5	608.0	404.0	446.0	472.5	495.2	427.5	470.5	516.8	545.5
40	411.5	460.5	521.5	556.5	369.8	403.0	429.5	454.5	388.5	430.5	469.5	496.5
30	367.2	416.5	468.2	504.0	333.5	362.0	386.5	413.2	346.0	388.5	420.2	449.5
25	339.5	393.5	441.0	473.5	314.5	342.5	364.5	391.2	324.5	364.5	394.5	424.5
20	312.2	369.0	409.8	447.5	293.5	321.5	342.5	365.0	302.5	340.5	369.0	395.5
15	285.0	338.0	376.8	412.5	268.5	296.5	313.5	343.0	276.0	313.8	339.5	365.0
10	256.5	299.2	333.0	369.5	242.5	266.2	284.5	313.5	249.5	280.5	301.5	331.5
5	222.5	250.5	278.5	308.0	206.5	226.0	244.2	265.0	214.5	234.5	256.0	277.5
2	188.5	201.0	221.0	243.0	172.5	187.5	204.5	217.5	179.5	192.5	208.5	227.5
1	169.0	175.0	188.5	217.0	147.0	166.0	183.0	188.0	157.5	170.0	186.0	200.5
Mean	461.74	508.45	566.92	607.32	414.27	448.72	475.38	504.06	437.93	478.45	522.40	553.34
S.D.	158.64	161.18	175.11	179.58	135.96	141.27	152.34	152.62	149.60	154.42	169.67	173.86
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 74
C-007: High School Academic Achievement Composite

Maximum Score: 481

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	371.5	392.0	428.0	442.0	342.5	367.5	409.5	416.5	359.0	383.5	421.5	434.5
98	351.5	379.0	415.5	431.5	327.5	353.0	394.5	403.0	341.5	368.0	407.5	421.0
95	325.5	353.5	392.5	411.2	305.0	331.0	367.8	375.5	315.0	343.8	384.5	398.5
90	300.7	331.2	369.5	390.2	285.2	309.8	338.5	353.0	293.8	320.5	356.5	372.5
85	284.3	313.8	351.5	372.0	269.5	293.8	318.5	332.5	277.7	304.2	336.5	354.2
80	271.7	299.5	335.8	356.2	257.8	281.8	303.2	315.8	264.2	290.0	318.5	335.5
75	259.9	286.1	318.8	341.1	246.8	270.5	289.8	299.8	253.3	277.9	305.5	321.0
70	249.8	275.0	307.0	326.7	237.0	259.7	276.2	286.5	243.2	267.2	292.8	305.8
60	232.5	254.7	285.0	300.3	220.4	241.7	255.5	265.5	226.3	247.7	269.4	281.0
50	217.0	236.4	263.7	277.5	206.1	223.6	236.3	245.8	211.5	230.1	248.9	260.0
40	200.2	219.9	242.9	254.7	191.4	209.2	218.8	228.2	195.2	214.4	230.3	240.3
30	181.6	203.2	223.1	234.7	178.7	192.5	202.4	210.5	179.9	197.3	211.2	221.1
25	172.1	193.2	212.5	223.7	171.8	184.7	195.3	203.1	171.9	188.9	201.2	210.4
20	161.2	184.2	200.8	211.5	163.5	175.7	186.8	194.1	162.9	179.5	192.3	200.5
15	149.8	171.8	188.2	198.0	155.1	167.1	177.3	183.9	153.0	168.8	180.8	189.0
10	137.8	156.8	172.0	181.0	144.5	155.2	166.1	172.3	140.8	156.0	167.8	175.7
5	120.8	133.5	151.0	158.5	125.5	137.2	149.2	155.5	123.5	135.5	149.8	156.5
2	102.5	110.5	123.0	136.0	109.5	116.0	132.5	135.5	105.5	113.5	127.0	135.5
1	91.0	96.0	105.5	118.0	96.0	103.0	113.5	123.0	92.5	99.0	110.5	121.0
Mean	218.10	240.35	266.66	281.54	210.28	228.35	244.86	254.00	214.18	234.32	255.57	267.15
S.D.	62.49	66.45	74.54	77.77	54.91	59.73	66.96	68.26	58.94	63.45	71.62	74.24
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 75
C-008: Academic Achievement Composite

Maximum Score: 641

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	537.5	566.0	605.5	625.5	508.0	537.5	587.5	592.5	528.0	554.0	599.5	612.5
98	517.0	547.5	587.5	608.0	487.0	522.5	567.0	576.5	504.0	535.0	579.5	596.5
95	478.5	513.0	561.5	585.8	455.5	488.0	536.5	546.0	468.5	501.5	550.0	570.5
90	444.5	482.0	530.5	557.0	425.5	459.5	494.5	511.2	435.0	469.8	515.5	538.0
85	416.5	458.5	505.5	534.2	402.2	433.5	467.0	486.5	409.5	445.8	486.5	511.5
80	397.5	436.2	481.5	514.8	382.5	416.8	445.8	465.5	389.5	425.2	464.5	489.8
75	378.8	415.2	461.5	492.8	366.0	401.0	427.2	444.5	372.2	408.2	444.2	468.8
70	363.0	398.5	443.5	473.2	350.3	384.2	411.2	429.5	356.8	392.0	426.8	450.5
60	333.5	366.5	410.9	438.9	322.5	355.3	378.2	396.3	328.2	360.5	396.8	415.8
50	307.0	339.3	382.5	404.5	297.2	326.3	349.2	368.5	301.7	333.2	364.8	384.7
40	282.0	312.8	352.0	372.9	273.5	301.3	322.2	339.0	277.2	306.7	335.0	354.5
30	2[illegible].0	287.0	320.2	342.0	251.8	276.8	293.5	313.2	252.2	280.9	305.5	325.2
25	237.0	270.2	303.5	324.0	240.2	263.2	281.8	298.5	239.0	266.8	290.2	309.5
20	220.5	256.8	285.5	305.8	227.0	248.5	266.7	283.5	224.2	252.2	273.5	291.8
15	203.2	238.5	262.8	283.5	213.2	233.8	251.2	267.2	209.0	235.8	256.2	273.0
10	186.8	214.2	239.5	254.5	196.2	216.0	231.5	245.0	191.5	215.0	234.5	249.5
5	161.2	178.5	206.5	223.0	171.0	186.5	203.5	219.0	165.5	182.5	204.5	220.5
2	139.5	152.5	173.0	184.0	145.5	159.0	178.0	188.5	143.5	155.5	175.5	187.0
1	122.5	135.5	142.5	163.0	130.5	138.0	163.0	166.0	125.5	136.0	154.5	165.0
Mean	311.33	344.15	382.31	406.13	304.53	332.09	356.95	373.60	307.92	338.09	369.41	389.12
S.D.	97.33	100.59	108.62	111.82	87.55	92.72	100.14	100.10	92.62	96.91	105.16	107.09
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 76
C-009: Foreign Language Aptitude Composite

Maximum Score: 317

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	265.0	273.5	282.5	287.0	275.0	283.5	293.0	293.5	269.5	279.5	288.0	290.5
98	254.5	265.5	273.0	279.2	265.8	275.5	285.5	287.5	260.5	270.5	281.8	285.2
95	233.5	247.8	259.2	265.8	249.8	260.5	273.2	278.5	244.0	255.5	268.5	273.5
90	216.0	230.8	244.2	251.8	234.2	246.9	260.7	267.7	226.0	240.8	254.5	261.5
85	204.1	218.1	233.5	241.0	222.7	237.8	251.1	258.0	214.5	230.1	242.8	251.0
80	195.2	208.8	224.6	232.3	213.2	229.5	242.4	249.7	204.0	220.0	234.6	242.1
75	186.5	200.1	216.4	224.1	204.0	221.6	235.1	242.5	195.8	211.8	226.1	234.9
70	178.5	192.3	208.5	216.2	196.5	213.7	227.5	236.4	188.1	203.9	218.8	227.5
60	165.9	177.8	194.4	202.9	183.1	200.0	212.4	223.2	174.6	189.1	203.8	213.7
50	154.2	166.6	182.5	191.7	170.9	186.5	200.2	210.6	162.4	176.2	190.9	200.4
40	142.6	155.6	169.4	178.8	158.3	174.1	186.5	197.0	150.3	163.9	177.5	188.4
30	130.1	143.3	155.8	165.8	146.0	160.3	172.1	183.0	137.6	151.1	163.5	174.2
25	123.6	136.6	148.7	157.7	139.2	152.9	163.9	176.0	130.9	144.5	155.7	166.4
20	117.1	129.8	140.8	150.1	131.9	146.0	155.4	166.3	123.9	136.6	148.0	157.4
15	109.3	121.7	132.7	141.2	124.3	136.5	146.8	156.5	116.3	128.3	138.7	148.0
10	100.5	111.5	120.5	130.5	115.3	125.2	134.5	143.9	106.5	117.3	128.1	136.8
5	86.8	97.5	105.8	111.5	101.0	108.8	119.2	127.2	92.8	102.2	111.5	119.0
2	73.5	80.8	89.5	96.5	86.5	89.5	101.0	107.5	79.5	83.5	93.5	101.0
1	63.5	69.5	78.5	83.0	75.5	78.0	90.5	96.5	67.5	73.5	84.0	90.0
Mean	156.21	168.80	182.16	190.54	172.38	186.36	198.52	207.42	164.32	177.62	190.48	199.36
S.D.	44.62	45.68	46.90	46.39	45.59	46.80	47.55	46.46	45.83	47.07	47.94	47.19
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 77
C-010: Technical Composite

Maximum Score: 335

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	286.5	295.0	305.0	310.2	220.0	223.5	236.0	246.0	273.5	285.0	296.0	301.5
98	274.0	285.5	296.2	302.0	205.5	209.5	222.0	230.5	261.5	273.0	284.5	292.0
95	256.0	268.0	280.2	289.5	185.2	193.5	203.2	211.0	238.0	249.0	264.5	275.2
90	237.2	248.8	264.5	275.9	169.5	176.5	185.9	193.1	213.8	225.5	243.0	253.2
85	221.8	235.5	252.8	264.9	158.5	166.5	174.4	182.3	198.5	210.5	226.9	237.8
80	211.8	223.8	242.4	253.5	150.5	158.8	165.3	173.1	186.0	198.3	213.5	223.5
75	202.5	216.0	233.2	245.5	143.9	151.8	158.0	163.7	175.5	188.3	202.1	210.5
70	194.0	207.8	225.2	237.5	137.8	144.8	151.4	156.2	166.5	178.1	191.3	199.2
60	179.0	193.0	209.8	221.6	126.3	133.6	139.5	143.3	149.8	162.5	172.9	180.3
50	164.2	179.0	195.5	206.2	117.6	124.2	128.6	132.5	136.6	147.7	156.8	162.2
40	149.3	166.5	180.7	191.6	107.9	114.8	117.6	122.4	124.0	133.9	141.5	146.3
30	135.6	151.3	166.0	173.5	98.9	104.9	107.7	112.3	111.8	121.0	125.8	130.6
25	127.6	143.1	156.7	165.3	93.7	99.6	102.2	106.6	105.8	113.7	118.4	122.8
20	119.5	134.6	146.5	154.8	88.5	93.6	97.1	101.1	99.1	106.2	110.9	114.9
15	110.3	124.8	134.3	143.2	82.1	87.8	91.4	94.6	91.5	97.5	102.1	106.0
10	99.3	110.5	121.3	128.5	76.2	80.5	83.2	86.2	82.2	88.5	92.9	96.5
5	82.5	90.5	102.5	107.5	65.9	70.5	72.5	75.2	71.5	76.8	78.5	83.0
2	67.2	75.0	79.0	90.0	54.5	59.0	60.5	60.5	59.5	63.5	65.5	67.5
1	61.0	63.0	65.0	76.5	48.0	50.0	52.0	54.0	51.5	54.5	56.5	58.0
Mean	165.96	179.58	193.81	203.72	120.31	126.78	131.82	136.79	143.06	153.06	162.29	168.73
S.D.	52.14	52.39	54.17	55.15	36.95	37.54	40.18	41.71	50.60	52.64	56.78	58.98
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 78
C-011: Composite T

Maximum Score: 69

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	61.0	62.5	64.1	65.1	43.0	42.7	46.5	48.5	58.5	60.5	62.2	63.9
98	58.5	60.2	62.4	63.9	39.5	40.9	43.2	45.1	55.2	57.3	60.0	61.7
95	54.1	56.3	59.1	61.1	35.5	36.9	38.8	41.0	49.3	52.0	55.4	57.5
90	49.2	51.9	55.4	57.8	31.8	33.3	35.4	37.0	44.0	46.5	50.2	53.2
85	46.0	48.9	52.7	55.5	30.0	31.2	32.9	34.4	40.5	42.8	46.6	49.4
80	43.7	46.4	50.2	53.4	28.5	29.5	31.1	32.2	37.7	40.2	43.6	46.1
75	41.7	44.3	48.3	51.3	27.0	28.2	29.3	30.7	35.0	37.7	40.7	43.2
70	39.9	42.5	46.4	49.6	25.7	27.0	28.0	29.2	32.8	35.6	38.4	40.3
60	36.7	39.4	43.2	46.1	23.5	24.8	25.7	26.7	29.4	31.7	34.2	35.5
50	33.3	36.7	40.0	42.9	21.7	22.9	23.6	24.6	26.3	28.6	30.4	31.4
40	30.5	33.7	37.1	39.3	20.0	21.2	21.6	22.6	23.6	25.6	26.9	27.9
30	27.3	30.7	33.8	35.5	18.1	19.4	19.8	20.7	21.0	22.7	23.8	24.7
25	25.3	29.0	32.1	33.8	17.2	18.4	18.8	19.7	19.8	21.3	22.2	23.2
20	23.6	27.2	30.0	31.5	16.1	17.3	17.8	18.5	18.4	19.9	20.5	21.5
15	21.6	25.1	27.5	29.0	15.0	16.1	16.6	17.1	16.9	18.3	19.0	19.9
10	19.0	22.0	24.7	26.5	13.6	14.6	14.9	15.4	15.1	16.4	17.2	17.8
5	15.8	18.1	20.5	22.2	11.3	12.4	12.7	13.1	12.6	13.8	14.3	14.8
2	12.4	14.0	15.8	17.8	9.1	10.0	10.5	10.9	10.5	11.2	11.7	12.1
1	11.5	11.5	13.0	14.5	7.7	8.5	9.0	9.5	8.8	9.3	10.0	10.5
Mean	33.87	36.77	40.01	42.31	22.38	23.53	24.47	25.54	28.11	30.12	32.11	33.54
S.D.	11.45	11.32	11.61	11.90	7.40	7.38	7.99	8.41	11.22	11.62	12.61	13.22
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 79
C-012: Composite S

Maximum Score: 540

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	415.5	439.0	479.5	494.5	331.0	349.5	403.0	415.0	396.0	421.0	462.0	481.5
98	394.0	420.0	461.5	483.0	312.0	334.5	383.0	389.5	369.5	396.5	444.5	466.5
95	359.5	388.5	435.5	460.0	288.0	309.5	345.0	355.5	333.0	361.0	408.0	430.5
90	328.5	357.5	403.5	430.2	259.5	282.5	308.0	318.5	299.5	326.0	370.5	392.5
85	306.8	334.5	380.5	410.8	242.2	264.0	282.2	294.2	278.5	303.5	341.5	364.8
80	289.2	315.8	358.5	389.5	228.3	249.0	263.2	276.5	261.5	285.5	319.5	337.5
75	275.3	301.0	341.5	370.5	217.5	236.3	248.2	257.2	246.8	270.9	301.5	316.8
70	263.0	286.9	325.2	352.5	207.7	225.8	233.5	244.2	234.8	257.5	283.0	298.5
60	240.3	264.8	298.5	319.9	189.1	204.7	211.1	218.3	214.2	235.2	254.2	265.8
50	221.0	244.5	273.0	291.0	174.2	185.5	192.0	196.2	195.1	214.0	228.8	238.8
40	201.4	224.3	249.7	263.5	159.9	170.5	175.1	179.0	176.5	193.9	205.5	213.0
30	180.8	202.8	226.5	238.5	147.1	154.2	159.5	163.6	158.9	174.8	182.5	188.5
25	170.5	193.0	213.0	225.2	139.3	146.5	151.1	155.3	150.7	164.2	172.1	177.1
20	157.3	182.5	199.0	210.5	131.5	139.0	141.7	146.3	141.7	153.2	160.5	165.5
15	145.3	168.5	183.2	195.0	122.0	129.5	131.5	137.7	132.0	142.1	148.5	152.7
10	132.9	150.8	166.8	177.5	111.2	120.2	121.1	126.7	119.2	128.5	133.5	139.5
5	113.5	126.8	141.2	149.5	98.3	103.8	107.2	112.5	103.8	112.5	115.8	122.5
2	96.0	103.5	115.0	127.5	82.5	86.5	91.5	93.5	88.5	93.5	98.0	104.0
1	86.5	94.0	97.0	112.5	67.5	77.5	83.5	82.5	76.0	80.5	86.5	89.0
Mean	226.06	249.24	278.97	297.67	180.90	194.14	204.50	211.39	203.41	221.57	241.10	252.57
S.D.	75.04	78.40	89.19	95.11	57.86	62.98	72.68	75.06	70.68	76.23	89.34	95.50
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

TABLE 3-2 (continued)

Table 3-2. Part 80
A-500: Preferences Test

166 items

%ile	Raw Score											
	Boys				Girls				Total			
	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Gr. 9	Gr. 10	Gr. 11	Gr. 12
99	160.5	157.5	154.5	159.0	137.5	138.5	133.0	137.0	154.5	152.5	144.5	149.0
98	142.5	137.5	132.0	131.5	116.5	118.0	116.0	114.0	131.0	128.0	126.5	123.5
95	117.0	107.2	107.2	105.5	99.2	98.5	95.5	96.5	107.2	102.0	101.5	100.5
90	94.0	87.2	87.1	88.7	85.1	84.5	83.3	83.5	88.5	85.5	85.4	85.8
85	83.3	78.3	78.7	80.8	77.5	76.2	74.8	75.2	79.9	77.1	76.6	77.7
80	74.2	72.2	71.2	73.2	71.8	70.7	69.8	70.3	72.9	71.3	70.4	71.4
75	69.5	67.7	67.5	68.8	67.7	67.6	66.5	66.9	68.4	67.6	66.9	67.6
70	65.6	64.1	64.2	65.0	64.4	64.3	63.9	64.0	65.0	64.2	64.0	64.4
60	60.0	58.7	59.2	59.9	59.6	59.9	59.4	59.5	59.8	59.4	59.3	59.7
50	54.3	53.1	54.2	54.2	54.4	55.3	54.9	55.2	54.3	54.3	54.6	54.7
40	48.9	48.3	49.2	49.6	49.8	50.8	50.7	50.9	49.3	49.7	50.0	50.3
30	43.3	43.5	44.4	44.8	44.8	46.4	46.1	46.3	44.0	45.0	45.2	45.6
25	41.2	41.5	42.5	42.7	42.6	44.0	43.6	44.2	41.9	42.8	43.0	43.3
20	37.9	38.6	39.0	39.5	40.1	41.7	41.1	41.6	39.0	40.4	40.4	40.8
15	35.2	35.4	36.2	36.5	37.2	38.8	38.1	39.0	36.2	37.2	37.1	37.8
10	30.8	31.3	32.5	32.9	33.3	35.8	34.9	36.2	32.0	33.6	33.8	34.5
5	24.5	26.5	27.8	28.6	27.6	30.0	29.8	30.7	26.3	27.8	28.8	29.5
2	16.5	20.5	21.8	22.8	21.0	23.5	24.2	25.8	19.5	21.5	23.2	24.5
1	12.5	14.0	17.0	17.5	16.5	18.8	21.2	21.5	14.0	17.5	19.8	20.0
Mean	59.09	57.65	58.14	58.75	57.45	58.22	57.49	57.92	58.27	57.94	57.81	58.32
S.D.	27.74	25.78	25.00	25.00	22.70	21.99	21.18	21.00	25.35	23.95	23.14	23.00
N	3921	3876	3483	2946	4012	3914	3658	3302	7933	7790	7141	6248
N' in 100's	8221	8133	7351	6194	8271	8205	7607	6785	16492	16338	14958	12979

Part I of the Information Test, and some were in Part II, resulting in inclusion in the TALENT battery of a 30-item Vocabulary Scale (R-172) divided into two separate subscales (R-102, consisting of 21 items in Part I, and R-162, consisting of 9 items in Part II). The performance of the boys is definitely better than that of the girls at all grade levels on the Vocabulary Scale (R-172), and also on Vocabulary I (R-102). In the case of Vocabulary II (R-162), on the other hand, girls and boys score at about the same level, with a very small (though statistically significant) difference in favor of the girls.

To understand these results we should review the criteria used for selection of words for inclusion in the Project TALENT Vocabulary Scale and the consequent differences between this scale and many widely used vocabulary scales. Basically, the difference between the results for the Vocabulary I Scale and the Vocabulary II Scale is probably attributable to the differences in the subject-matter areas from which the words in the two scales were taken. None of the words was, strictly speaking, a technical word. In accordance with the rationale for development of the scale, it consists of only those items in the Information Test that provide a measure of the student's general vocabulary. Although the distinction between general vocabulary and technical or specialized vocabulary is not a precise one, general vocabulary, for the purpose under discussion, consists of words that may reasonably be in the vocabulary of well-educated persons whether or not they have had specialized training in a particular area. To take a hypothetical example, words such as "spherical," "federal," and "vapor" represent concepts from the areas of mathematics, social studies, and physical science, respectively; but they may nevertheless be part of a person's general vocabulary, and therefore eligible for inclusion in the Vocabulary Scale. Inclusion of such words is one way in which the Project TALENT test differs from some other vocabulary tests, a number of which appear to be limited to words of a rather literary character. It should be recognized, however, that even when words from special subject-matter areas such as mathematics are included in the Vocabulary Scale, the words themselves are general.

Compared with other vocabulary tests, the Project TALENT Vocabulary Scale appears to have included in Part I (R-102) a larger proportion of words in subject-matter areas in which boys are more knowledgeable than girls.

Distribution of Scores on the Screening Scale (R-101)

Answering the items correctly in the Screening Scale requires nothing more than the ability to read at a very low level. The kind of information called for by these items is so simple that they can be answered correctly by anyone who can read and understand English.

The following is a fairly typical item:

TABLE 3-3

Distribution of TALENT Vocabulary Items by Content Area

Content Area	No. of Items		
	Part I (Scale 102)	Part II (Scale 162)	Total (Scale 172)
Art	0	1	1
Music	1	0	1
Journalism	0	1	1
Geography	1	0	1
Government	1	0	1
Law	0	1	1
Business, accounting	0	2	2
Mathematics	1	0	1
Physical science	2	0	2
Mechanical	2	0	2
Zoology	1	0	1
Medicine	0	1	1
Interior decoration, architecture	1	0	1
Cooking	1	0	1
Outdoor activities	0	1	1
Ballet	0	1	1
Miscellaneous[a]	0	1	1
General[b]	10	0	10
Total	21	9	30

a/The "miscellaneous" category consists of items that are in a specific content area other than those tabulated above.

b/The "general" category, as used in this table, refers to abstract or wide-range terms that cannot be assigned to any particular category; for instance words such as "impel."

How many minutes are there in an hour?

A. 10
B. 12
C. 24
D. 60
E. 100

Almost all high-school students are able to cope with items of this degree of difficulty. Inspection of Table 3-4, which presents the percentage distribution of Screening Scale scores by grade and sex, suggests that probably not more than about one-quarter of one per cent of grade-9 students, and an even smaller percentage of those in higher grades, obtained scores no higher than chance would permit.[1] Thus it would appear that even so-called nonreaders in high schools can almost all read well enough to cope with the Screening Scale. Most nonreaders have not been represented to any large extent in the Project TALENT samples, perhaps because hardly any of them reach high school. Even the large numbers of high-school students who have very serious reading difficulty and who obtain very low scores on the Reading Comprehension Test (R-250) can apparently handle some of the Screening items.

Distributions of Scores on the Electricity and Electronics Information Scale (R-111)

The Electricity and Electronics Information Scale (R-111) is the test variable on which sex differences are most extreme. The differences are enormous throughout the range of scores--even as high as the 99th percentile. For eleventh-grade girls, for instance, the 99th percentile is a raw score of only 12.5 (on a 20-item scale); for boys the corresponding value is a nearly perfect score, 19.6. A girl who knows much about electronics is apparently even rarer than a girl who has a good stock of mechanical information, as is apparent from a comparison of the tops of the percentile tables (Table 3-2, Parts 11 and 12). On a more academically oriented scale, Physical Science Information (R-107), boys tend to score higher than girls throughout the range, but the differences are slight in comparison with those for the Electricity and Electronics Information and Mechanical Information Scales. These data support the hypothesis that sex differences in patterns of information acquired are attributable more to differences in interest than to differences in inherent ability. Both are probably factors to some extent.

Distributions of Scores on the Capitalization Test (R-232)

It is interesting to note that high-school students seem to have learned with considerable success the rules of capitalization, even though some of them may have learned little else. Part 46 of Table 3-2

[1] Table 3-5 shows, for purposes of comparison, the most likely distribution of chance scores on a 12-item scale with 5-choice items (like the Screening Scale).

TABLE 3-4

Percentage Distribution of Raw Scores on Screening Scale (R-101), by Grade and Sex
Based on Subsample A-10.0-3, Weighted Data[a]

Raw Score	Boys								Girls								Total							
	Grade 9		Grade 10		Grade 11		Grade 12		Grade 9		Grade 10		Grade 11		Grade 12		Grade 9		Grade 10		Grade 11		Grade 12	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
12	59.7	100.0	65.9	100.0	73.5	100.0	76.9	100.0	70.1	100.0	75.4	100.0	79.1	100.0	81.5	100.0	64.9	100.0	70.7	100.0	76.4	100.0	79.3	100.0
11	17.0	40.3	17.4	34.1	15.0	26.5	13.8	23.1	16.2	29.9	15.2	24.6	14.1	20.9	13.1	18.5	16.6	35.1	16.3	29.3	14.5	23.6	13.4	20.7
10	6.2	23.3	4.7	16.7	3.5	11.5	2.5	9.3	4.6	13.7	3.5	9.4	2.6	6.8	2.4	5.4	5.4	18.5	4.1	13.0	3.0	9.1	2.5	7.3
9	4.9	17.1	4.3	12.0	3.0	8.0	2.2	6.8	3.3	9.1	2.2	5.9	1.5	4.2	1.0	3.0	4.1	13.1	3.2	8.9	2.3	6.1	1.6	4.8
8	7.0	12.2	4.5	7.7	3.4	5.0	3.1	4.6	3.4	5.8	2.4	3.7	1.5	2.7	1.3	2.0	5.2	9.0	3.5	5.7	2.4	3.8	2.1	3.2
7	3.2	5.2	2.0	3.2	0.8	1.6	1.2	1.5	1.6	2.4	0.8	1.3	0.7	1.2	0.6	0.7	2.4	3.8	1.3	2.2	0.8	1.4	0.9	1.1
6	0.9	2.0	0.6	1.2	0.4	0.8	0.1	0.3	0.4	0.8	0.3	0.5	0.3	0.5	0.0	0.1	0.6	1.4	0.5	0.9	0.3	0.6	0.1	0.2
5	0.4	1.1	0.2	0.6	0.2	0.4	0.1	0.2	0.2	0.4	0.1	0.2	0.0	0.2	0.1	0.1	0.4	0.8	0.2	0.4	0.1	0.3	0.0	0.1
4	0.4	0.7	0.2	0.4	0.1	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.0	0.0	0.2	0.4	0.1	0.2	0.1	0.2	0.1	0.1
3	0.2	0.3	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0
2	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0
1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0	

[a] See Table 3-1 for weighted and unweighted numbers of cases.

TABLE 3-5

Most Likely Percentage Distribution[a] of Scores Based on Chance Responses to 12 Five-Choice Items

Score	%	Cum. %
12	0.00	---
11	0.00	---
10	0.00	---
9	0.01	100.00
8	0.05	99.99
7	0.33	99.94
6	1.55	99.61
5	5.32	98.06
4	13.28	92.74
3	23.62	79.46
2	28.35	55.84
1	20.62	27.49
0	6.87	6.87
Total	100.00	

[a] Comparison of this chance distribution with the distributions actually obtained on the Screening Scale (R-101), as shown in Table 3-4, reveals how few students performed at the chance level on that scale.

confirms this. This part shows median scores of 29.7 for grade 9 and 30.8 for grade 12, on the 33-item Capitalization Test (R-232). Due allowance must be made for chance success since the items have only two options, but even with this allowance it appears that the median grade-9 student knows the answers to 80 per cent of the items, and his grade-12 counterpart knows 87 per cent of the answers.

This is an excellent showing since the items cover almost all the major rules of capitalization. Although the scores show a difference in favor of the girls, it is very small except towards the bottom of the distribution. Thus, in absolute terms, both boys and girls tend to score high on this test. The schools are apparently remarkably successful in teaching students what words to capitalize. This is probably attributable to the fact that the rules of capitalization are fairly simple and can be applied routinely without the necessity for using reasoning or judgment to determine whether a rule is applicable.

Distributions of Scores on the Arithmetic Reasoning Test (R-311)

The average high-school student does not seem to have mastered arithmetic reasoning very well. This is unfortunate because by the time he reaches high school he has probably had about all the formal instruction in this important skill that he is likely ever to have. The Arithmetic Reasoning Test consists of 16 items requiring the student to know how to solve certain problems (e.g., whether to add, subtract, multiply, or divide), but not, in general, requiring him to work out actual solutions or to do any computation. None of the items is intrinsically very difficult. A bright elementary-school student should not have any trouble with most of them. And yet the average grade-9 student answers only about seven items correctly. This is true of both boys and girls. In grade 12 the average raw score is only about 10 for boys, and under 9 for girls. The average high-school student isn't as good at solving simple reasoning problems as he is at applying rote memory (e.g., simple rules he has learned, like the rules of capitalization).

It is perhaps worth comment that the average score on the Arithmetic Reasoning Test is higher in grade 12 than in grade 9 even though most of the students have received no formal instruction in solving arithmetic problems in the interim. The rise in mean score is explainable partly in terms of the fact that the cumulative effects of dropout make the students in the higher grades an increasingly selected group. But the gain is too large to be accounted for wholly in that way, nor can different dropout rates for boys and girls account for the extent to which the means for boys in grades 9-12 increase more than the means for girls in the same grades.

A large part of the gain is probably attributable to incidental learning and to practice as by-products of courses in mathematics and in physical science.

English Test: Item-Analysis Data

The performance of students on individual items in the English Test is revealing. Item-response counts obtained separately for students in grade 9 and in grade 12 show something about what representative high-school students know and don't know. The groups used for the item analysis consisted of 869 boys and girls in grade 9 and 674 boys and girls in grade 12. These groups constituted approximately 0.94 per cent[1] of the boys and girls in these grades in the total Project TALENT sample.

Table 3-6 shows the distributions of item difficulty indexes for grade 9 and for grade 12. Each difficulty index represents the percentage of examinees who answered the item correctly. Since all students had time to finish the test, these percentages are directly comparable for items at the beginning of the test and those towards the end.

English Usage. Before considering the item-analysis results for the English Usage Test, it is important to know exactly what the task set by the test is. The instructions and sample item in the test booklet are as follows:

> "Directions: You will be given a number of sentences which have some words missing. A blank appears wherever a word or group of words is missing. For each blank, several choices are given which could go into the blank. You are to pick the choice which would fill the blank best. If two choices for a blank are correct, select the one you think is better and mark the answer space for that choice on your answer sheet. Here is a sample item:
>
> Sl. He _____ ready yet.
>
> A. isn't
> B. ain't
> C. aren't
>
> Since 'isn't' is the word that best fits the blank, answer-space A has been marked on the answer sheet for sample item Sl."

The important thing to note about these instructions is that they ask the student to pick the best answer, not the one right answer. Thus, what is measured is knowledge of preferred usage. The student is not

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[1] This sample, designated B-01.0(.94)-25, is defined in Appendix A-1. The sample is not wholly representative of the entire Project TALENT sample, but it is adequate for item-analysis purposes.

TABLE 3-6

TALENT English Test: Distribution of Item Difficulties
Based on Subsample B-01.0(.94)-25[a] (Unweighted Data)

% Right (p)	Number of Items											
	R-231 Spelling		R-232 Capitalization		R-233, Punctuation				R-234 English Usage		R-235 Effective Expression	
					Section a Punctuation Marks		Section b Sentence Structure					
	Gr.9	Gr.12	Gr.9	Gr.12	Gr.9	Gr.12	Gr.9	Gr.12	Gr.9	Gr.12	Gr.9	Gr.12
100	0	0	0	0	0	0	0	0	0	0	0	0
95-99	0	0	9	17	1	1	0	1	1	3	0	0
90-94	0	3	5	11	0	2	0	1	3	2	0	3
85-89	1	0	10	1	1	0	1	2	1	0	1	2
80-84	1	2	3	1	1	2	1	1	0	4	0	0
75-79	1	1	3	0	2	0	1	1	1	3	3	3
70-74	0	0	0	1	0	2	1	2	4	3	0	0
65-69	1	2	0	0	1	3	2	0	2	0	3	1
60-64	1	0	0	0	2	1	1	0	1	1	1	2
55-59	1	3	1	1	1	1	1	0	2	3	0	1
50-54	2	1	0	0	1	0	0	0	2	0	3	0
45-49	1	2	1	1	2	1	0	1	2	4	1	0
40-44	2	1	0	0	0	2	1	0	1	0	0	0
35-39	0	0	1	0	1	0	0	1	2	2	0	0
30-34	1	0	0	0	0	0	2	0	2	0	0	0
25-29	1	1	0	0	1	1	0	1	1	0	0	0
20-24	3	0	0	0	1	0	0	0	0	0	0	0
15-19	0	0	0	0	1	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0	0	0	0	0
5- 9	0	0	0	0	0	0	0	0	0	0	0	0
0- 4	0	0	0	0	0	0	0	0	0	0	0	0
No. of Items	16	16	33	33	16	16	11	11	25	25	12	12
Median Item %	49.5	62.0	88.2	94.6	59.5	67.8	65.8	77.0	62.0	73.7	66.2	77.8
Mean Item %	49.8	64.6	85.7	91.3	57.1	67.6	61.4	71.1	61.0	70.0	65.0	77.5
Mean Score	7.97	10.34	28.28	30.13	9.14	10.81	6.75	7.82	15.25	17.50	7.80	9.30

[a] Cases on which item analysis is based:

Grade	N	Mean Eng. Tot.Score (R-230)
9	869	75.19
12	674	85.90

required to determine in absolute terms whether any particular usage is definitely incorrect or whether on the other hand it is marginally acceptable but merely undesirable. Instead, he must decide which of several choices provides the best (i.e., the clearest, most unambiguous, least awkward, grammatically acceptable) way of expressing a particular idea.

Table 3-7 shows the percentage of students making various kinds of errors in English usage. (The word "error," as used here, should be understood to mean choice of an option that is not considered the best of those offered.) To understand this table fully, one should understand how it was constructed. Consider the following illustrative item (which was not in the test but could have been):

Every one of them _____ a good job.

A. done
*B. has done
C. have done
D. has did
E. have did

Choosing the correct answer to this item implies knowledge of three points, as follows:

1. That "every" takes a singular verb.
2. That the correct past participial form of "do" is "done," preceded by the proper auxiliary verb. Note that the technical terminology (e.g., "participle," "auxiliary verb") need not be known, however.
3. That "done" is not the past tense of "do."

If this item had been one of those in the test it probably would have been used for two entries in Table 3-7--one for each of the first two points mentioned above. No entry would have been feasible for the third point since the item is not suitable for yielding a clear-cut distinction between those who think "done" is the past tense of "do" and those who think "did" is.

The two entries might have looked somewhat as follows, with the symbols A', B', C', D', E', and O' representing the percentages.

	Wrong Responses	%	Omissions and Irrelevant Responses	%	Right Responses	%
1.	Every one of them <u>have</u>	C'+E'%	Omit Irrelevant	O'% A'%	<u>has</u>	B'+D'%
2.	He <u>done</u> it <u>has did</u>	A'% D'+E'%	Omit	O'%	<u>has done</u>	B'+C'%

The first of the two entries above deals with the singular-vs.-plural issue. Since Option A throws no light on this point, the percentage of students selecting this response is shown in the center column after the label "Irrelevant." No entry has been made in Table 3-7 regarding any point for which irrelevant options represent a large percentage of the responses since such entries would not provide clear-cut evidence and might be misleading.

In the second entry, since the question of whether "every" is singular or plural is not an issue, the wording has been revised to eliminate any doubt as to whether the subject is singular, and the assumption is made that those who chose Option C (have done) or E (have did) would have chosen B (has done) or D (has did) if the subject of the sentence had been unambiguously singular (like "He," for instance). In Table 3-7, similar minor editorial changes are made in the wording of item or options, or both, to clarify the data.

Not all the items in the English Usage Test have options that lend themselves to inclusion in Table 3-7. Therefore only selected items have entries in it.

The near-illiterate expressions such as "he don't," "could have did," and "has went" are chosen by fewer students in grade 12 than in grade 9, but the drop in percentage of occurrence is a relatively small one--typically from about 12 per cent in grade 9 to 6 per cent in grade 12. It seems likely that most of this drop represents greater selection of the twelfth-grade students, rather than maturation or learning that occurred between grades 9 and 12. This statement is based on the belief that children have considerable opportunity in elementary school to learn that locutions such as "he don't" are incorrect, and that even if they have picked up the habit of making such errors (through imitation of family and friends), most of them know better. Perhaps those who haven't acquired enough basic information about the elements of English usage to recognize, when the question is posed, that "he don't" and kindred incorrect locutions <u>are</u> incorrect are relatively unlikely ever to do so. If this supposition is correct, those boys and girls who err on multiple-choice questions calling for recognition of errors at this level in English usage have only about a fifty-fifty chance of staying in high school until they graduate.

Among the usage errors made by quite a few students who probably wouldn't dream of saying "he don't," one of the most popular consists in treating expressions such as "neither of them" as plural. There is also tremendous confusion about proper uses of the subjunctive mood. Another major source of difficulty is when to use pronouns in the nominative form and when in the objective form. For instance on one item over 60 per cent of the students chose "whomever" or some other incorrect option where "whoever" is clearly the correct answer. Furthermore, it appears that their training in grades 10-12 does not educate students on this point. The percentage answering this item correctly is about as low in grade 12 as in grade 9.

TABLE 3-7

Percentage of Students Selecting Specified Wrong Responses for Selected English Usage Items, and Percentage Answering Correctly

From Item Analysis of TALENT English Test Based on Subsample B-01.0(.94)-25[a]
(Unweighted Data)

Category of Problem	Wrong Response	% Selecting Response		% Omissions and Irrelevant Responses[b]		Right Response	% Selecting Response	
		Gr. 9	Gr. 12	Gr. 9	Gr. 12		Gr. 9	Gr. 12
Verbs	he don't	9	4			he doesn't	91	96
	has went	15	8			has gone	85	92
	could have did	13	7			could have done	87	93
	had broke	20	15	Ir. 7	4	had broken	71	80
	breaked	2	1					
		22	16					
	The book							
	laid on the table	15	13	Om. 1	0	lay	38	50
	was laying	12	11			was lying	32	25
	was lain	2	1				70	75
		29	25					
	loan	3	2			borrow	96	98
	lend	1	0					
		4	2					
	learn him to swim	5	2			teach him to swim	95	98
Singular vs. plural	neither of them are	61	56	Ir. 4	2	neither of them is	35	42
	everyone kept their comments brief	54	42	Om. 2	0	everyone kept his comments brief	44	58
Subjunctive mood	if it was	40	34	Om. 2	1	if it were	41	56
	if it would be / would have been	13	6					
	if it is	4	3					
		57	43					
	he requested that everyone stays	29	18	Om. 2	0	he requested that everyone stay	69	82

See footnotes on last page of table.

TABLE 3-7 (continued)

Category of Problem	Wrong Response	% Selecting Response		% Omissions and Irrelevant Responses[b]		Right Response	% Selecting Response	
		Gr. 9	Gr. 12	Gr. 9	Gr. 12		Gr. 9	Gr. 12
Double negative	couldn't hardly	27	15			could hardly	73	85
Negative forms	neither Joe or Ed	33	28			neither Joe nor Ed	67	72
Conjunctions	on account of it is there	20	8	Om. 1	0	since it is there	79	92
	like he should	34	26			as he should	66	74
Pronouns	Mary or him will come	32	20			Mary or he will come	68	80
	I am no taller than her	43	23			than she	57	77
	The weather bothers him more than I because I'm used to it.	28	22	Om. 1	0	than me	71	78
	Ask his brother and he to stay	18	17	Om. 1	0	and him	81	83
	idea of them coming here	68	51			their	25	45
	they	7	4					
		75	55					
	It's for whomever you think would use it those whom whomsoever they that	62	61	Om. 1	1	whoever	37	38
Adjectives and adverbs	more tall	12	8			taller	88	92
	furtherest	17	19	Om. 1	0	furthest	45	49
	fartherest	26	27					
	farrest	10	3					
	most far	1	2					
		54	51					

See footnotes on last page of table.

TABLE 3-7 (continued)

Category of Problem	Wrong Response	% Selecting Response		% Omissions and Irrelevant Responses[b]		Right Response	% Selecting Response	
		Gr. 9	Gr. 12	Gr. 9	Gr. 12		Gr. 9	Gr. 12
Adjectives and adverbs (cont.)	them books them there books those there books	5	1			those books	95	99
	most all of them mostly all of them	9 14 23	9 6 15	Ir.	3 3	almost all of them	74	82
	He walked fastly rapid	3 29 32	3 20 23			He walked fast	68	77
	real good	4	3	Ir.	28 20	very good	68	77

[a] Number of cases on which the item analysis is based.

Grade	N
9	869
12	674

[b] Ir. = irrelevant response
Om. = omitted item

Explanatory Note:
To understand this table fully, one should understand how it was constructed. The reader is therefore referred to the explanation on the two pages preceding this table.

The students have trouble with adjectives, too. For instance, less than half of them know the superlative form of the word "far." (This is probably in large part a regional problem.) Among the students with misconceptions on this matter, "fartherest" outdraws its next closest competitor, "furtherest," by a substantial margin. Another very popular usage is "like it should" instead of "as it should." About one-third of the grade-9 students and one-fourth of the grade-12 students are apparently unaware that the "like" usage is less generally acceptable than the "as" usage.[1]

Effective Expression. On some of the items in the Effective Expression Test, the great majority of the students performed creditably, but there does seem to be considerable fondness for circumlocutions. Instead of "completing a job" 35 per cent of grade-9 students and 25 per cent of grade-12 students prefer to "accomplish completion of a job" or "accomplish a completed job." And only 50 per cent of the grade-9 students and 66 per cent of the grade-12 students prefer a simple statement like "In some cases it may be necessary to ask for more money to meet emergencies" to "Asking for more money to meet emergencies may sometimes be needed," or "Upon occasion it may be found necessary to issue requests for supplementary funds to contend with unexpected eventualities." It is encouraging to find a substantial gain between grades 9 and 12 in the percentage marking the correct choice on this item. Obviously some learning has taken place, since not all of the increase can be attributed to selective dropout.

Punctuation and Capitalization. Table 3-8 shows the percentages of students making certain kinds of errors in punctuation and capitalization. One of the most common errors is the notion that an apostrophe belongs somewhere in "its" even if the word is used as a possessive. Only 64 per cent of twelfth-graders leave it out. The joint use of double and single quotation marks and the capitalization of direct quotations are other sources of confusion. Except for the items indicated in Table 3-8, almost every capitalization item was answered correctly by at least 90 per cent of the grade-12 students.

Spelling. In examining a set of printed words to determine which of them, if any, have been misspelled, two kinds of errors are possible--failure to find misspelled words and failure to recognize correct spellings as such. Which of these two types of error is more prevalent? The Project TALENT Spelling Test throws some light on this question since the task it sets is to determine which word among four (choices A, B, C, and D) has been misspelled, if any. Choice E (None of the above) is to be selected if the four words are all spelled correctly. The test results suggest that failure to observe that a word has been misspelled (selecting choice E when A, B, C, or D is the correct answer) is much more common than the other type of error, identifying as misspelled a word that is spelled correctly. Table 3-9 shows this quite clearly.

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[1] One may speculate on the role of cigarette ads in spreading this particular vulgarism.

TABLE 3-8

Percentage of Students Selecting Specified Wrong Responses for Selected Punctuation and Capitalization Items, and Percentage Answering Correctly From Item Analysis of TALENT English Test, Based on Subsample B-01.0(.94)-25[a] (Unweighted Data)

Category of Problem	Wrong Response	% Selecting Response		% Omitting Item		Right Response	% Selecting Response	
		Gr. 9	Gr. 12	Gr. 9	Gr. 12		Gr. 9	Gr. 12
Use of apostrophe	its = it is	23	13	1	0	it's = it is	68	83
	its' = it is	8	4					
		31	17					
	it's (possessive)	31	17	1	0	its (possessive)	48	64
	its' (possessive)	20	19					
		51	36					
	childrens'	40	45	0	1	children's	48	48
	childrens	12	6					
		52	51					
	dont	12	4	0	0	don't	88	96
Use of compound quotes	Various wrong arrangements	74	57	0	0	Single and double quotes (used jointly)	26	43
Use of colon	comma or semi-colon	77	57	0	0	colon	23	43
Start quotation with capital	"do	40	30	1	0	"Do	59	70
Continue quotation (middle of sentence) with small letter	"Not	52	51	1	0	"not	47	49
Miscellaneous capitalization problems	Christmas Holidays	60	44	1	0	Christmas holidays	39	56
	british	18	17	0	0	British	82	83

[a] Number of cases on which the item analysis is based.

Grade	N
9	869
12	674

In the 13 items for which A, B, C, or D is the key answer, each of the three correctly spelled words is identified as incorrectly spelled by only 9 per cent of the grade-9 students and 5 per cent of the grade-12 students, on the average, while 25 per cent and 21 per cent of these groups, respectively, select choice E (None of the above) where it is the wrong answer.

Domain Tests

In the areas of vocabulary, spelling, and reading comprehension, exploratory work was undertaken in the development of "domain tests"--tests in which an effort was made to have the items constitute a systematic sample of a carefully defined domain of knowledge or ability. These tests differ from other tests chiefly in that raw scores on them have some absolute meaning without reference to norms.

For instance, how many words can a student spell? How many words are there in his active vocabulary? How many in his recognition vocabulary? What kinds of materials can he read and comprehend? How fully can he comprehend them? The answers to all these questions convey useful information without any reference to norms. This may be contrasted with the kind of information conveyed by the statement that a student achieved a raw score of 11 on the Project TALENT Abstract Reasoning Test. This statement has no useful meaning except in relation to normative data.

The domain tests developed in the areas of reading and spelling were administered to samples of high-school students along with the corresponding tests of the regular Project TALENT battery, and preliminary results are now available. The domain tests were equated to the regular Project TALENT tests by means of an equi-percentile equating of points estimated in distributions of true scores. In addition, an item analysis of the spelling tests was carried out. These results are discussed below. Analysis of results on the domain test developed in the area of vocabulary has not yet been completed. These results will be discussed in a future report.

Domain Test in Spelling. In addition to the spelling test in the regular Project TALENT battery, a special 150-item spelling test was developed, the so-called spelling domain test, which had as its purpose to determine how many of the 5,000 words most frequently appearing in print the student could spell. A representative 150-word sample was chosen from the first 5,000 words in the Thorndike-Lorge Word List[1] with words in the following categories being excluded:

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[1]The population of words sampled consisted of those in categories 14-49, A, and AA in the "G" classification in the Thorndike-Lorge Word List. See Thorndike, E. L. and Lorge, I. The Teacher's Word Book of 30,000 Words. New York: Bureau of Publications, Teachers College, Columbia University, 1944.

TABLE 3-9

Percentage Distribution of Kinds of Response to Items of TALENT Spelling Test (Scale 231) from Item Analysis of TALENT English Test, Based on Subsample B-01.0(.94)-25

Type of Spelling Items[a]	Number of Items	Key Answer	Grade	Percentage of Students						
				Who Answered Item Correctly	Who Answered Item Incorrectly			Who Omitted Item	Total	Number of Students
					Indicating That No Word is Misspelled When One is (Option E)	Indicating That Correctly Spelled Word is Misspelled (Options A-D)				
						3-Option Total	Single Option Average			
I. Items in which one of the 4 words is misspelled	13	A,B,C, or D	9	47.7	24.9	26.9	9.0	0.5	100.0	869
			12	64.1	20.8	15.1	5.0	0.0	100.0	674
						4-Option Total	Single Option Average			
II. Items in which none of the 4 words is misspelled	3	E	9	59.3	---	40.7	10.2	0.0	100.0	869
			12	67.0	---	33.0	8.2	0.0	100.0	674

[a] Directions and sample items for the test are reproduced below, to show simple examples of the two categories of items:

Directions: Each item in this test contains four words, one of which may be misspelled. Look at all four words, and if you find one that is misspelled, mark that answer space on your answer sheet. If all four words are spelled correctly, mark answer space E (None of the above) on your answer sheet for that item. There is never more than one misspelled word in any one item.

Sample items:

S1. A. dog
B. pen
C. kat
D. paper
E. None of the above

S2. A. hat
B. fish
C. nine
D. cup
E. None of the above

1. Dialect: e.g., afeared
2. Other words classified as illiterate: e.g., ain't
3. Archaic words: e.g., natheless, dost
4. Colloquial words: e.g., enthuse
5. Slang words: e.g., cop, dopey
6. Foreign words: e.g., mademoiselle, cum laude
7. Proper names of people: e.g., John, Jones

These 150 words constituted the test. For each of the words an illustrative sentence was framed. The resulting test was administered orally by the examiner. He read the word and the sentence aloud, and the student wrote the word in his test booklet. He was allowed ample time for this, since the test was not designed to be speeded. The test booklets contained the 150 sentences, with a blank where the word to be spelled belonged.

The distribution of the 150 words in regard to frequency of occurrence is shown in Tables 3-10 and 3-11. Table 3-10 shows the representation of the first 500 words, the next 500, the next 1,000, etc., in the test. Also shown in this table are some empirical data on item difficulty that will be discussed later. Table 3-11 shows the distribution of the 150 test words in terms of number of occurrences per million words. Multiplying any given "true score"[1] on this test by the fraction 5,000/150 gives an "absolute score," which represents the number of words spelled correctly among the most frequent 5,000.

The test was administered along with the 16-item multiple-choice Spelling Test of the regular Project TALENT battery to 773 students representing selected groups in grades 9-12 in three school systems, and

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[1] By "true score" is meant a hypothetical score, free of errors of measurement. In other words a person's true score on a test would be the mean of his scores on a hypothetical infinite number of parallel forms of the test. A "true score" and an "obtained score" are defined as equivalent if they have the same percentile ranks in their respective distributions. The formula for converting from "obtained score" to equivalent "true score" is

$$X_\infty = X_1 \sqrt{r_{11}} + \bar{X}_1 (1 - \sqrt{r_{11}})$$

where X_1 = obtained score

X_∞ = equivalent true score (within a particular group of students)

$\bar{X}_1$ = mean of obtained scores for that group

r_{11} = reliability of obtained scores for that group

The true score equating procedure is discussed in some detail by John C. Flanagan, in: Lindquist, E. F., et al. Educational Measurement. Washington: American Council on Education, 1951. Chapter 17

TABLE 3-10

Distribution of 10,000 Most Frequent Words in Terms of Frequency of Occurrence, and Corresponding Distribution of Words in Domain Test of Spelling (Form A) in the First 5,000; Also Percentage of Grade 12 Students Spelling Words Correctly

Division of Words Into Approximate Thousands	Thorndike-Lorge Word List[a]			Domain Test of Spelling - Form A		
	Thorndike-Lorge "G-Category"[b]	Exact Number of Words	Cumulated Number of Words	Number of Words (Test Items)	Per Cent of Grade 12 Students Spelling Words Correctly (N=167)[c]	
					Mean Item Per Cent	Range of Item Per Cents
"1st 1,000"	AA--1st 500	500	500	14	97.2	91-100
	AA--Remainder	569	1,069	19	94.4	81-100
"2nd 1,000"	A	952	2,021	38	91.5	49-100
"3rd 1,000"	30-49	941	2,962	28	85.1	50-100
"4th 1,000"	19-29	1,055	4,017	28	85.8	35- 98
"5th 1,000"	14-18	894	4,911	23	75.0	19- 99
"6th 1,000"	10-13	1,181	6,092	0	---	---
"7th 1,000"	8- 9	963	7,055	0	---	---
"8th, 9th, and 10th 1,000"	4- 7	3,231	10,286	0	---	---
TOTAL		10,286		150	87.6	19-100

[a] Thorndike, Edward L., and Lorge, Irving. The Teacher's Word Book of 30,000 Words. New York: Bureau of Publications, Teachers College, Columbia University, 1944.

[b] The "G-Category" represents the number of occurrences of the word per million words, in "general" materials. Words occurring 50-99 times per million are designated A, and words occurring 100 or more times per million are designated AA.

[c] From item analysis of domain test of spelling. Distributions of these item difficulty indexes are shown in Table 3-14.

TABLE 3-11

Distribution of Words in Domain Test of Spelling (Form A)
in Terms of Frequency of Occurrence

Division of Words in Thousands[a]	Occurrences Per Million Words[b]	No. of Words in Test
1st 1,000	100+ [c]	33
2nd 1,000	50-99[d]	38
3rd 1,000	49	2
	48	1
	47	0
	46	1
	45	2
	44	2
	43	1
	42	1
	41	0
	40	1
	39	1
	38	1
	37	0
	36	3
	35	1
	34	3
	33	2
	32	2
	31	0
	30	4
4th 1,000	29	4
	28	1
	27	2
	26	4
	25	1
	24	0
	23	1
	22	3
	21	3
	20	4
	19	5
5th 1,000	18	4
	17	6
	16	3
	15	4
	14	6
	Total	150

[a] Approximate.

[b] Word-count G in Thorndike-Lorge Word List.

[c] Category AA according to Thorndike-Lorge Word List.

[d] Category A according to Thorndike-Lorge Word List.

on the basis of 722 of these students[1] an equi-percentile equating of points in the true-score distributions was carried out.[2] Table 3-12 presents the resulting equivalent scores. It is encouraging to note that the average student can spell correctly a very large percentage of the first 5,000 words. Table 3-13 shows that the average ninth-grade student would spell about 83 per cent of them correctly (4,147 words to be precise) while the corresponding average for grade 12 would be 93 per cent (or 4,647 words). This 500-word increase represents considerable improvement in level of spelling ability during the last three years of high school, although part of it must be due not to growth but to selective dropout.

An item analysis of all the items in the domain test was carried out on the basis of the 773 students to whom it had been administered. Table 3-14 shows the distribution of item difficulties by grade.

The following six words were spelled correctly by all the grade 12 students in the item-analysis group: "corn," "five," "pages," "rain," "sang," "tea."

One of the most frequently misspelled words was "shriek." It is interesting to note the inventiveness of some of the students in finding ways to misspell it; for instance:

sceak	schriek	sherik	shreck	shrieck	street
scheek	screak	shiek	shreek	shrik	strick
schreak	screek	shike	shreep	sreak	sweak
schreek	scrik	shirk	shreik	sreek	sweek
schreick	sheak	shreak	shrick	srike	

Only five of the words were misspelled by more than half the grade-12 students. One of the five, "breathe," was among the first 2,000 most frequently used according to the Teacher's Word Book of 30,000 Words.

Frequent use does not necessarily make a word easy to spell although familiarity does tend to make the spelling of a tricky word easier than it would be if the word were unfamiliar. Thus, the relationship between frequency with which a word appears in print and ease of spelling, while not a close one, is at least moderate in magnitude. In the domain test, the correlation between percentage of students spelling the word right

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[1] It is not necessary that a sample used for equi-percentile equating in a situation such as the one under discussion be wholly representative, since biases in it can reasonably be expected to affect the two tests being equated about equally, thus canceling out, provided that the tests measure the same ability or the same complex of abilities.

[2] The true score distributions used in this equating were derived from the obtained score distributions by means of the conversion equation shown in footnote 1 on page 3-98.

TABLE 3-12

Equivalent[a] True Scores on Spelling Domain Test (Form A) and TALENT Spelling Test (R-231)

Domain	TALENT Score (R-231)	Absolute Score[b]
150	15.4	5000
149	13.8	4967
148	13.1	4933
147	12.5	4900
146	12.1	4867
145	11.8	4833
144	11.4	4800
143	11.1	4767
142	10.9	4733
141	10.6	4700
140	10.4	4667
139	10.2	4633
138	10.0	4600
137	9.8	4567
136	9.6	4533
135	9.5	4500
134	9.3	4467
133	9.2	4433
132	9.1	4400
131	8.9	4367
130	8.8	4333
129	8.7	4300
128	8.6	4267
127	8.5	4233
126	8.4	4200
125	8.3	4167
124	8.2	4133
123	8.1	4100
122	8.0	4067
121	7.9	4033
120	7.8	4000
119	7.8	3967
118	7.7	3933
117	7.6	3900
116	7.5	3867
115	7.4	3833
114	7.4	3800
113	7.3	3767
112	7.2	3733
111	7.1	3700
110	7.1	3667
109	7.0	3633
108	7.0	3600
107	6.9	3567
106	6.8	3533
105	6.8	3500
104	6.7	3467
103	6.7	3433
102	6.6	3400
101	6.6	3367
100	6.5	3333
99	6.4	3300
98	6.4	3267
97	6.3	3233
96	6.2	3200
95	6.2	3167
94	6.2	3133
93	6.1	3100
92	6.0	3067
91	6.0	3033
90	5.9	3000
89	5.9	2967
88	5.8	2933
87	5.8	2900
86	5.8	2867
85	5.7	2833
84	5.6	2800
83	5.6	2767
82	5.6	2733
81	5.5	2700
80	5.5	2667
79	5.4	2633
78	5.4	2600
77	5.4	2567
76	5.3	2533
75	5.3	2500
74	5.2	2467
73	5.2	2433
72	5.2	2400
71	5.1	2367
70	5.1	2333
69	5.0	2300
68	5.0	2267
67	5.0	2233
66	4.9	2200
65	4.9	2167
64	4.8	2133
63	4.8	2100
62	4.8	2067
61	4.7	2033
60	4.7	2000
59	4.6	1967
58	4.6	1933
57	4.5	1900
56	4.5	1867
55	4.4	1833
54	4.4	1800
53	4.3	1767
52	4.3	1733
51	4.2	1700
50	4.2	1667
49	4.1	1633
48	4.1	1600
47	4.0	1567
46	4.0	1533
45	4.0	1500
44	3.9	1467
43	3.8	1433
42	3.8	1400
41	3.7	1367
40	3.7	1333
39	3.6	1300
38	3.6	1267
37	3.5	1233
36	3.4	1200
35	3.4	1167
34	3.3	1133
33	3.2	1100
32	3.2	1067
31	3.1	1033
30	3.1	1000
29	3.0	967
28	3.0	933
27	2.9	900
26	2.8	867
25	2.8	833
24	2.7	800
23	2.6	767
22	2.5	733
21	2.5	700
20	2.4	667
19	2.3	633
18	2.2	600
17	2.1	567
16	2.0	533
15	1.9	500
14	1.8	467
13	1.7	433
12	1.6	400
11	1.5	367
10	1.4	333
9	1.3	300
8	1.1	267
7	1.0	233
6	0.9	200
5	0.7	167
4	0.6	133
3	0.5	100
2	0.3	67
1	0.1	33
0	0.0	0

[a] Based on an equi-percentile equating of scores for students in grades 9-12 in three school systems. (N = 722)

[b] Absolute score equals number of words spelled correctly in first 5,000 on Thorndike-Lorge Word List.

TABLE 3-13

Means by Grade and Sex on TALENT Spelling Test and Equivalent True Scores and Absolute Scores on Spelling Domain Test

Grade	Sex	TALENT Spelling Test Mean[a] (R-231)	Equivalent True Score on Domain Test[b]	Absolute Score[c]
9	M	7.48	115.8	3,860
	F	9.00	131.5	4,383
	Total	8.24	124.4	4,147
10	M	8.13	123.3	4,110
	F	9.59	135.9	4,530
	Total	8.86	130.6	4,353
11	M	8.84	130.4	4,347
	F	10.40	140.0	4,667
	Total	9.63	136.2	4,540
12	M	9.43	134.6	4,487
	F	11.07	142.8	4,760
	Total	10.29	139.4	4,647

[a] Based on subsample A-10.0-3. (See Table 3-1.)

[b] From equi-percentile equating. (See Table 3-12.)

[c] Number of words spelled correctly in first 5,000 on horndike-Lorge Word List.

TABLE 3-14

Domain Spelling Test: Form A Distribution of Item Difficulties[a/]

% Right (p)	Number of Items			
	Grade 9	Grade 10	Grade 11	Grade 12
100	3	6	5	6
95-99	33	25	45	52
90-94	33	29	29	39
85-89	14	18	26	13
80-84	23	20	12	11
75-79	11	12	8	10
70-74	6	11	8	7
65-69	5	4	6	3
60-64	2	4	4	2
55-59	6	2	0	0
50-54	6	10	0	2
45-49	3	3	3	1
40-44	0	0	2	1
35-39	1	0	1	2
30-34	2	3	0	0
25-29	1	1	0	0
20-24	0	1	1	0
15-19	0	0	0	1
10-14	0	0	0	0
5-9	0	1	0	0
0-4	1	0	0	0
No. of Items	150	150	150	150
N	219	230	157	167
Median %	87.4	85.3	90.2	92.3
Mean %	82.3	80.4	86.2	87.6
Domain Test: Mean Score	123.5	120.6	129.2	131.4

[a/] Based on students in grades 9-12 in three school systems (N = 773).

and frequency of occurrence turned out to be about .4 in grade 12.[1] Table 3-10 presents in a somewhat different way the relationship between frequency of occurrence of a word and how easy it is to spell. It is clear from these data that even some of the comparatively infrequent words (there are no very infrequent words included in the test) are spelled correctly by almost all students in grade 12.

To give the reader an idea of the sorts of words in the first 5,000, let us examine a familiar document, the Preamble to the Constitution of the United States.

> "We the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America."

Of the 52 words in the Preamble, all but three ("ordain," "posterity," and "tranquillity") are in the first 5,000. (The three exceptions are in the second 5,000 and thus they, too, occur relatively frequently.) All but nine of the 52 words are in the first 2,000. Twenty-nine of these are in the first 500, 16 of the 29 being multiple occurrences of just five words, "the," "of," "and," "to," and "for." Four are in the next 500, and 10 in the second 1,000. There are two words each in the third, fourth, and fifth thousands. Considering this distribution in comparison with the item-difficulty data in Table 3-10, or using the regression equation shown in the footnote on this page, it might reasonably be surmised that the average grade-12 student would misspell about four words in the Preamble if he were writing it from dictation.

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[1] Somewhat more precisely, the correlation was .3954 when the average frequency of words in Thorndike-Lorge category AA (defined as words occurring 100 or more times per million) was arbitrarily estimated at 200 occurrences per million words for the top 500 words and 120 per million for the remaining 569 words in category AA, and the average frequency of words in category A (defined as words occurring 50-99 times per million) was estimated at 70 occurrences per million. The corresponding regression equation for estimating spelling difficulty from frequency of occurrences is:

$$\tilde{\%} = .10143\ G + 80.965$$

where G = number of occurrences of the word, per million words according to Thorndike-Lorge count "G."

$\tilde{\%}$ = estimated percentage of grade-12 students spelling word correctly.

Domain Tests in Reading. Two domain tests were developed in reading comprehension, one in the domain of fiction (novels only) and the other in the domain of nonfiction (magazines only). The former test was designated Form A-1 and the latter, Form A-2. Each was a 100-item multiple-choice test, based on 20 passages. Five 5-choice items were written about each passage.

Form A-1 was made up of items based on passages from two novels by each of ten authors, who were selected because they differed widely in the complexity, subtlety, and general difficulty of their writings. The opening passages or passages very close to the beginning were used in every case. This form yielded ten scores, one for each of the ten-item tests about an author's novels.

Form A-2 was made up of items based on passages from two articles in each of nine magazines (each article was from a different issue) and one passage each from two movie magazines. As in the case of the authors, the magazines were selected on the basis of the wide differences among them in the complexity, subtlety, and difficulty of their articles. The articles selected were the ones starting closest to a specified page number and the beginning of the article was usually the part used. This form yielded ten scores, one for each of the ten-item tests about nine different magazines and one for the ten-item test based on the two movie magazines.

Table 3-15 summarizes the content of the two tests in terms of authors and magazines represented, the novels from which the Form A-1 passages were selected, and the number of items.

In constructing the tests, an effort was made to have one item of each of the following types for each passage:

1. An item testing general understanding of the passage--comprehension of its general idea or intent;
2. An item testing comprehension of one of the simplest points in the passage;
3. An item testing comprehension of a point of average difficulty (relative to the difficulty of the passage);
4. An item testing comprehension of the most difficult point in the passage;
5. An item testing appreciation of the passage, or an application of the ideas in it, or an inference drawn from it.

Form A-1 was administered along with the 48-item Project TALENT Reading Comprehension Test to 1,322 students representing selected groups[1] in grades 9-12 in two school systems. Likewise, Form A-2 was administered, along with the same Reading Comprehension Test, to 1,103

[1]See footnote 1 on page 3-101.

TABLE 3-15

Content of Domain Tests of Reading Comprehension (Forms A-1 and A-2)

Form A-1 (Fiction)	Author	Novel	No. of Passages	No. of Items
	Louisa May Alcott	Eight Cousins	1	5
		Jo's Boys	1	5
	Robert Louis Stevenson	Treasure Island	1	5
		The Black Arrow	1	5
	Rudyard Kipling	Kim	1	5
		The Complete Stalky & Co.	1	5
	Willa Cather	Sapphira and the Slave Girl	1	5
		A Lost Lady	1	5
	Sinclair Lewis	Dodsworth	1	5
		Ann Vickers	1	5
	Jules Verne	20,000 Leagues Under the Sea	1	5
		Purchase of the North Pole	1	5
	Jane Austen	Northanger Abbey	1	5
		Mansfield Park	1	5
	Joseph Conrad	The Arrow of Gold	1	5
		The End of the Tether	1	5
	Feodor Dostoevski	A Raw Youth	1	5
		Crime and Punishment	1	5
	Thomas Mann	Joseph and His Brothers	1	5
		Dr. Faustus	1	5
	Total		20	100

Form A-2 (Non-Fiction)	Magazine		
	Silver Screen	1	5
	Modern Screen	1	5
	Saturday Evening Post	2	10
	Look	2	10
	McCall's	2	10
	Reader's Digest	2	10
	Pageant	2	10
	Time	2	10
	Fortune	2	10
	Atlantic	2	10[a]
	Saturday Review	2	10
	Total	20	100[a]

[a] One of the 10 items based on passages from Atlantic was unscored, leaving only nine scored items representing that magazine, and 99 scored items in the test as a whole.

students in grades 9-12 in two school systems. "True scores"[1] for each of the ten scores from Form A-1 and for each of the ten from Form A-2 were set equal to points in the distribution of true scores on the Project TALENT Reading Comprehension Test, by an equi-percentile equating procedure.[2] While the schools administering the tests gave as much time for the domain test as was administratively feasible, some students did not have time to finish it. Scores were not obtained for tests on authors or magazines for students who did not have time to finish.[3] Scores of students who did not finish were omitted from the equating for those authors or magazines. Table 3-16 summarizes the composition of the equating sample by grades and shows the amount and kind of attrition due to failure to complete the domain test. The students who finished the test were not very much better in reading ability than those who didn't, judging from the fact that mean scores on the Project TALENT Reading Comprehension Test (R-250) are not very different for the complete cases and the total group.

The resulting equivalent scores are shown for the authors in Table 3-17 and for the magazines in Table 3-18. Table 3-19 shows, for each author and each magazine, the average percentage of items that would be answered correctly in each grade and also in each grade-and-sex group. It appears from this table that Louisa May Alcott is by far the easiest and Thomas Mann the hardest of the authors covered by the test; also that the two movie magazines are, by a wide margin, the easiest and the Saturday Review and the Atlantic the hardest of the magazines covered.

In interpreting the results obtained in using the domain tests of reading, it must be borne in mind that these two tests are experimental in nature. The crucial and unanswerable question is what degree of success was achieved in the effort to make the items for the various passages of equal difficulty relative to the intrinsic difficulty of the passages themselves.

The fact that the results obtained by use of the tests are quite in line with a priori expectations concerning the relative difficulty

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[1] For an explanation of the concept of "true scores," see the previous section.

[2] The equating procedure used was described briefly on page 3-101 in connection with the discussion of the equating of the domain test of spelling to the Project TALENT Spelling Test.

[3] An exception was made for the last author or magazine the student reached, if he had time to attempt at least five of the ten items. In that event, his score on the items he reached was corrected upward empirically to the mean ten-item score achieved by students who finished the ten items and got the same number right as he did among the ones he reached.

TABLE 3-16

Composition of Equating Groups for Reading Domain Tests (Forms A-1 and A-2), by Grade, and Extent of Attrition[a] in Sample

Form	Grade	Total No. of Cases	No. of Complete Cases	Per Cent of Cases Complete	TALENT Reading Comprehension Mean (R-250)	
					All Cases	Complete Cases
A-1	9	245	206	84.1	30.23	30.66
(Authors)	10	423	323	76.4	32.90	33.16
	11	333	274	82.3	33.29	33.39
	12	321	261	81.3	35.07	35.69
	TOTAL	1,322	1,064	80.5		
A-2	9	246	163	66.3	27.08	27.30
(Magazines)	10	285	193	67.7	30.26	30.43
	11	287	199	69.3	31.76	32.04
	12	285	170	59.6	33.67	35.23
	TOTAL	1,103	725	65.7		

[a] Attrition due to failure to complete the domain test.

TABLE 3-17

Equivalent[a] True Scores on TALENT Reading Comprehension Test (R-250) and Domain Test of Reading Comprehension, Form A-1 (Authors)

Domain Score for Author	Corresponding TALENT Test True Score (R-250)									
	Author 1	Author 2	Author 3	Author 4	Author 5	Author 6	Author 7	Author 8	Author 9	Author 10
	Louisa May Alcott	Robert Louis Stevenson	Rudyard Kipling	Willa Cather	Sinclair Lewis	Jules Verne	Jane Austen	Joseph Conrad	Feodor Dostoevski	Thomas Mann
10	47.8	---	---	---	---	---	---	---	---	---
9	45.8	47.0	47.9	47.7	47.8	47.2	---	---	---	---
8	40.5	45.1	47.5	46.2	46.8	45.4	48.0	47.6	47.8	---
7	34.3	40.8	46.4	43.2	44.8	42.8	47.8	46.6	46.7	48.0
6	28.0	34.2	43.3	38.2	41.5	38.4	46.7	44.0	43.8	47.6
5	21.8	27.8	36.8	32.5	35.2	33.9	44.4	39.2	38.0	46.5
4	16.0	21.8	28.2	23.9	28.2	28.8	39.4	33.0	30.1	44.5
3	11.8	15.8	19.5	16.2	21.2	23.2	29.0	25.8	22.2	36.8
2	8.4	11.2	12.8	10.7	14.2	15.8	17.7	16.1	14.2	19.8
1	4.9	6.8	7.1	5.8	7.6	7.9	7.5	6.8	6.8	6.4
0	1.4	2.0	2.1	1.7	1.8	1.8	1.8	1.7	1.8	1.2
N[b]	1322	1322	1322	1322	1322	1297[c]	1300	1253	1189	1064

[a] Based on an equi-percentile equating of true scores.

[b] Number of cases on which equating is based.

[c] This N is smaller than the one to its right because as a result of an anomaly in the numbering of the items for one of the Verne passages, three otherwise complete cases lacked scores on the Verne items.

TABLE 3-18

Equivalent[a] True Scores on TALENT Reading Comprehension Test (R-250) and Domain Test of Reading Comprehension, Form A-2 (Magazines)

Domain Score for Mag.	Corresponding TALENT Test True Score (R-250)									
	Mag. 1	Mag. 2	Mag. 3	Mag. 4	Mag. 5	Mag. 6	Mag. 7	Mag. 8	Mag. 9	Mag. 10
	Silver Screen Modern Screen	Sat. Even. Post	Look	McCall's	Reader's Digest	Pageant	Time	Fortune	Atlantic	Sat. Review
10	48.0	48.0	48.0	48.0	---	48.0	48.0	48.0	[d]	---
9	44.2	47.8	47.9	47.9	48.0	47.8	47.9	47.8	47.9	48.0
8	33.8	46.4	46.9	47.6	47.6	47.5	47.4	47.4	47.8	47.9
7	27.2	43.0	44.6	47.1	46.0	46.7	46.4	46.7	47.5	47.7
6	20.8	37.2	41.2	45.9	43.2	44.8	44.7	45.2	46.9	47.3
5	17.0	29.3	35.1	43.7	36.5	39.9	41.7	42.8	45.4	46.6
4	13.5	22.5	27.9	35.4	30.1	32.9	36.3	38.2	42.2	44.8
3	9.7	16.2	21.9	23.8	22.1	25.2	28.6	30.6	34.9	36.2
2	6.1	9.6	14.0	14.0	13.5	14.4	19.5	20.0	23.9	17.5
1	2.8	4.1	6.0	5.2	5.5	5.2	6.2	6.4	6.2	4.0
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N[b]	1103	1103	1102	1099	1093	1103[c]	1068	1013	901	725

[a] Based on an equi-percentile equating of true scores.

[b] Number of cases on which equating is based.

[c] This N is larger than the one to its left because the Pageant passages were the first ones in the test booklet. (With this exception, the order of the passages corresponded to the order of the magazines in this table.)

[d] The maximum possible domain test score for Atlantic is 9. (See footnote on Table 3-15.)

TABLE 3-19

Percentage of Reading Comprehension Items the Average High-School Student Can Answer Correctly, on Passages from Specified Authors and Magazines, by Grade and Sex

		Grade 9			Grade 10			Grade 11			Grade 12		
		M	F	Total	M	F	Total	M	F	Total	M	F	Total
		Raw Score Mean on TALENT Reading Comprehension Test (R-250)[a]											
		24.55	26.09	25.32	27.52	29.05	28.29	30.84	31.46	31.16	33.02	33.56	33.30
Form	Domain Test of Reading Comp.	Corresponding Percentage of Items Answered Correctly[b]											
A-1	Authors												
	Louisa May Alcott	54.4	56.9	55.7	59.2	61.7	60.5	64.5	65.5	65.0	68.0	68.8	68.4
	Robert Louis Stevenson	44.6	47.2	45.9	49.5	52.0	50.8	54.8	55.7	55.2	58.2	59.0	58.6
	Rudyard Kipling	35.8	37.6	36.7	39.2	41.0	40.1	43.1	43.8	43.4	45.6	46.2	45.9
	Willa Cather	40.8	42.5	41.7	44.2	46.0	45.1	48.1	48.8	48.4	50.9	51.9	51.4
	Sinclair Lewis	34.8	37.0	35.9	39.0	41.2	40.1	43.8	44.7	44.2	46.9	47.7	47.3
	Jules Verne	32.4	35.2	33.8	37.7	40.5	39.1	44.0	45.2	44.6	48.3	49.3	48.8
	Jane Austen	26.1	27.4	26.7	28.7	30.0	29.4	31.8	32.4	32.1	33.9	34.4	34.1
	Joseph Conrad	28.7	30.4	29.5	32.4	34.5	33.5	37.0	37.9	37.4	40.0	40.9	40.5
	Fedor Dostoevski	33.0	34.9	33.9	36.7	38.7	37.7	40.9	41.7	41.3	43.7	44.4	44.1
	Thomas Mann	22.8	23.7	23.2	24.5	25.4	25.0	26.5	26.9	26.7	27.8	28.1	27.9
A-2	Magazines												
	Silver Screen, Modern Screen	65.9	68.3	67.1	70.5	72.8	71.7	75.5	76.5	76.0	78.8	79.6	79.2
	Saturday Evening Post	43.0	45.3	44.1	47.4	49.6	48.5	51.9	52.7	52.4	54.7	55.4	55.1
	Look	34.4	37.0	35.7	39.4	41.6	40.5	44.1	44.9	44.5	47.1	47.9	47.5
	McCall's	30.6	32.0	31.3	33.2	34.5	33.9	36.1	36.6	36.3	37.9	38.4	38.2
	Reader's Digest	33.1	35.0	34.0	36.8	38.7	37.7	41.2	42.1	41.7	44.6	45.4	45.0
	Pageant	29.4	31.2	30.2	33.0	35.0	34.0	37.3	38.1	37.7	40.2	40.9	40.6
	Time	25.5	27.2	26.4	28.8	30.6	29.7	32.9	33.7	33.3	35.7	36.4	36.1
	Fortune	24.3	25.7	25.0	27.1	28.5	27.8	30.3	31.1	30.7	33.2	33.9	33.6
	Atlantic	22.9	24.4	23.7	25.9	27.4	26.7	29.2	29.9	29.6	31.4	32.0	31.7
	Saturday Review	23.8	24.6	24.2	25.4	26.2	25.8	27.1	27.5	27.3	28.3	28.6	28.4

[a] Means based on Subsample A-10.0-3. (See Table 3-1.)

[b] These percentages, which are derived from Tables 3-17 and 3-18, correspond to the raw score means shown above. The percentages are equi-percentile equivalents of these means.

of the various authors (and magazines) suggests that some degree of success was achieved in making comparable the sets of items measuring comprehension of the various passages. The preliminary results are sufficiently promising that further exploratory work with tests of this sort seems definitely worthwhile.

Student Information, Misinformation, and Lack of Information

A large-scale item analysis has been completed for Part II of the Information Test. The percentage of students selecting each choice and the percentage omitting the item were determined for each grade-and-sex combination. This item analysis was based on all cases on the 1963 Project TALENT master tape.[1] The results are thus extremely stable, since each set of data is based on at least 30,000 students. Furthermore since the data are weighted[2] to reproduce percentages of the national population of high-school students, the results are inherently informative.

We can get some interesting insights into the interests, out-of-school activities, hobbies, and daily life of high-school students by seeing what they know and what they don't know. Part II of the Information Test does not tell the whole story, of course, nor do percentages of students marking given responses on individual items tell us much about patterns of responses. Nevertheless, by piecing together some scattered facts, both important and trivial, that the typical teen-ager knows and some of the "facts" that he thinks he knows, we can put together a picture of the high-school student that is quite revealing if somewhat limited in scope.

The typical high-school student knows relatively little about art. Apparently he has heard of Rembrandt, da Vinci, Michelangelo, Picasso, and Whistler, but of few other artists. This may account for the fact that about half the students correctly identified the artist who painted the "Mona Lisa,"[3] but that about the same percentage attributed "Blue Boy" to Rembrandt, with a larger number attributing it to Picasso than to Gainsborough, who did paint it. (When students encounter a test question about something with which they are unfamiliar they are likely to select as the answer an option representing something they are familiar with.)

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[1] Sample A-100.0. For a description of this sample see Chapter 2 and Appendix A-1.

[2] School Weight A was used. See Chapter 2 for a description of this set of weights.

[3] This was in 1960, three years before the widely publicized loan of the painting to the United States by France. The percentage of students knowing who painted the "Mona Lisa" might be substantially higher now.

Only about 60 per cent of the boys and 65 per cent of the girls in grade 9 know the first words of the national anthem. By the time grade 12 is reached, 74 per cent of the boys and 78 per cent of the girls know what the words are, although all of them must have had ample opportunity to learn.

Students do not graduate from high school without ever having studied the Constitution of the United States, but only about one-sixth of the grade-12 students (23 per cent of the boys and 11 per cent of the girls) seem to have any idea what the term "double jeopardy" means. However, hardly any of the grade-9 students understand the term. It must be recognized, of course, that some boys and girls understand the concept even though they do not know the meaning of the word "jeopardy."

The double-jeopardy concept is not the only one dealt with in the Bill of Rights that the students seem hazy about. Only about 17 per cent of the boys and 6 per cent of the girls seems to know what the word "indictment" means. The most popular misconception is that it is the same thing as conviction. About 40 per cent of the grade-12 students selected this wrong answer to the test item.

It is a little surprising how few high-school seniors can state correctly what century a given year was in. For instance, only about 22 per cent of the boys and 6 per cent of the girls in grade 12 knew the correct century for 1002 A.D.

Shifting back to the recreational domain, we infer, on the basis of responses to one of the questions in the Theater Scale (which is concerned with the legitimate theater, not motion pictures), that very few high-school boys and girls are part of the theater-going public--a fact that is of course hardly surprising in view of the vast areas of the country where legitimate theater is virtually nonexistent, except perhaps in the form of high-school plays. The inference about paucity of theater-going among high-school students is based on the supposition that anyone who attends plays often or who is sufficiently interested in the theater to have spent much time reading plays is almost certain to know that the cast is not customarily listed in order of importance, a misconception that seems quite prevalent among non-theater-goers judging from responses to the Information Test item dealing with this point.

Most of the students seem to know at least a little about photography. About half of the seniors appear to have some understanding of the concept of depth-of-field, and over 80 per cent have at least a minimal comprehension of the term "out-of-focus." They are so familiar with the concept of stereo hi-fi equipment, apparently, that it interferes with their answering correctly one of the photography items that uses the term "stereo cameras" as a choice.

As for their reading habits, few of the boys and girls in high school today are science-fiction buffs, if we can judge from the fact that almost none of them seemed to know the answer to a question

dealing with science-fiction authors. More of the students did know what a U.F.O. is, but while this is a favorite subject in science fiction, it has also been of considerable interest to the general public.

Another little sidelight on life in the 1960's and its impact on high-school students is the fact that nylon seems to be regarded as a magic solution to all practical problems. If the word "nylon" is one of the choices, most of the students will mark that choice, right or wrong. For instance, what kind of line does one put on a fresh-water spinning reel? "Braided nylon," according to 60 per cent of the seniors, who are obviously guessing, and guessing wrong.

Next, let us examine a little data that was garnered, via two items of the Information Test, concerning what the boys and girls know about a couple of aspects of etiquette. While girls seem to know a little more than boys about such matters, both sexes seem much surer of themselves, in both grades 9 and 12, in the area of dating behavior than in such matters as how a table is set (about which only half the seniors can answer a relatively simple question).

In the domain of small practical problems of daily life, about 94 per cent of all high-school seniors and about 80 per cent of the ninth-graders know what a C.O.D. purchase is. Nearly as many students know how to get free road maps. Perhaps one can infer from these two examples that high-school students are reasonably aware of ways of getting things without having to put out cash on the spot or without having to pay at all. About the subtleties of credit, however (for instance the cheapest way of financing the purchase of a car), they are considerably less well informed.

Summary

Topics Discussed in This Chapter

In this chapter, percentile norms by grade and sex are presented for 80 Project TALENT test variables. The norms and item-analysis data for selected tests are discussed. The development of "domain tests" in two areas, spelling and reading, is also discussed, and some results from the equating of these tests to corresponding tests in the Project TALENT battery are presented. There is also a brief discussion of the results of the item analyses carried out on selected tests.

Growth From Grade to Grade

1. Although the average score on most of the tests increased steadily from grade to grade, these differences were all small in comparison with the differences in ability within a grade.

2. In a few areas, slight regressions were found between consecutive grades. Most of these regressions coincided with lack of interest,

reflected in failure to take elective courses (in the case of academic subjects) or in failure to acquire information in the area through other voluntary activities. Lack of interest probably accounts, for instance, for the lack of steady growth from grade to grade in the average girl's information about physical science, aeronautics and space, and hunting.

3. There is very tentative evidence (from the Preferences Test) that some growth during the high-school years may occur in judiciousness in making decisions (about choice of friends, for instance).

Sex Differences in Test Performance

1. Most of the differences between the mean test scores of boys and girls were fairly small.

2. Large differences between the mean scores of boys and of girls probably reflect differences between the sexes in topics of interest. For example, the much greater interest of boys than girls in aeronautics and space, mechanics, electricity and electronics, sports, hunting, and fishing, was reflected in substantially higher mean information scores in these areas.

3. Boys did better than girls in physical-science information, but their superiority in this academic area was not nearly so great as in related nonacademic areas, such as electricity and electronics.

4. Boys did better than girls on the mechanical-reasoning test (an aptitude measure) but not as much better as would have been commensurate with their superiority in mechanical information if the latter superiority had been wholly attributable to differences in aptitude.

5. The greater interest of girls than boys in such areas of information as music, art, architecture, theater and ballet, foods, etiquette, home economics, and color names was reflected in correspondingly higher mean scores in these areas.

6. The higher mean score of girls in home economics probably reflected the fact that they had had more formal or informal training than boys in this area.

7. Boys tended to do better than girls in mathematics, particularly at the upper grade levels. (In grade 9, these differences were almost negligible.)

8. Girls performed better than boys on all tests of language skills, including English.

9. Whether girls scored higher or lower than boys on a vocabulary test seems to have been largely a function of the subject-matter areas sampled by the words used.

Performance on Specific Tests

Arithmetic Reasoning. The average high-school student seems not to have mastered arithmetic reasoning very well. Although the test items in this skill were not intrinsically very difficult and required hardly any computation, ninth-grade boys answered only about 46 per cent of them correctly and ninth-grade girls only about 44 per cent. In grade 12, these percentages were slightly higher: 61 per cent for boys and 55 per cent for girls.

Capitalization. The median student in grade 9 knew the answers to 80 per cent of the items in this area; in grade 12, to 87 per cent. The schools were remarkably successful in teaching students the rules of capitalization, probably because these rules are fairly simple and can be applied routinely. Table 3-8, which presents some of the item analysis results, shows capitalization problems that more than 10 per cent of the grade-12 students answered incorrectly.

English Usage. The item-analysis results show that near-illiterate expressions, such as "he don't," "could have did," and "has went" were the options chosen as correct by about 12 per cent of the students in grade 9 and about 6 per cent in grade 12. It is inferred that most of this decrease from grade 9 to 12 represented selective dropout and that boys and girls who haven't acquired enough basic information by grade 9 about the elements of English usage to recognize, when the question is posed, that such locutions as "he don't" are incorrect have only about a fifty-fifty chance of staying in school until they graduate.

Spelling. Results of the item analysis suggest that students are less likely to observe that a word has been misspelled than to identify as misspelled a word that is, in fact, spelled correctly.

Screening Scale. It seems likely that less than one-fourth of 1 per cent of grade-9 students and an even smaller percentage of students in higher grades have so little mastery of reading skills that their responses to the extremely easy items that constitute the Screening Scale are dependent almost wholly on chance. In other words, virtually all students who get as far as grade 9 have at least a modicum of ability to read, no matter how inadequately.

Domain Tests in Reading and Spelling

Spelling. A special "domain test" of spelling, testing ability to spell a representative sample of the 5,000 words used most frequently (in published materials) was constructed and equated to the Spelling Test in the Project TALENT battery. The results show that the average ninth grader can spell about 83 per cent of the 5,000 words and the average twelfth grader, about 93 per cent.

Reading Comprehension: Novels. The domain test covers ten authors. Arranged in order of increasing difficulty for high-school students, they are: Louisa May Alcott, Robert Louis Stevenson, Willa Cather, Jules

Verne, Sinclair Lewis, Rudyard Kipling, Feodor Dostoevski, Joseph Conrad, Jane Austen, and Thomas Mann.

Reading Comprehension: Magazines. The domain test covers 11 magazines. Arranged in order of increasing difficulty for high-school students, they are: two movie magazines, Saturday Evening Post, Look, Reader's Digest, Pageant, McCall's, Time, Fortune, Atlantic, and Saturday Review.

Some Implications of the Results

1. The average high-school student apparently isn't as good at solving simple reasoning problems as he is at memorizing simple rules (like the rules of capitalization) and applying them.

2. Differences in amount of information are sometimes, but not always, indicative of differences in intrinsic capacity to learn a subject.

3. Amount of formal training in an area or informal exposure to it, even if that training or exposure has not been sought by the individual, probably plays an important role in determining the amount of information he acquires in the area.

4. Most sex differences that have been found in patterns of information reflect differences in interests. (It is recognized, of course, that there is probably considerable linkage among intrinsic ability in an area, exposure to it, and interest in it.)

5. The fact that differences in ability within a grade are so great in comparison with differences between grades is a strong argument in favor of individualizing instruction.

Chapter 4

DIFFERENTIAL MEASUREMENT

The Diversity of Human Talents

It has long been recognized that human talents are of diverse kinds. It was not surprising, therefore, that when Alfred Binet and his coworkers developed the first systematic tests of mental ability, they included tasks of widely different types. Some of them required the exercise of rote memory of meaningless materials; other, rote memory of meaningful material. Tasks involving psychomotor coordination, reasoning with nonverbal and verbal materials, spatial visualization, number facility, and many others were included.

Nevertheless, Binet cumulated the scores on these diverse tasks into a single score in the belief that they all measured essentially a unitary skill that has come to be known as general mental ability. Spearman, in fact, provided empirical evidence and a systematic rationale to support this belief. In the course of time, however, investigators came to measure a wider variety of mental skills and recognized that while the general ability described by Spearman and others has broad application, the degree to which its presence displays itself in individuals is less useful for predicting the performance of these individuals in a number of different kinds of courses of study or in the practical tasks involved in many occupations than scores on some of the more specific mental and motor skills included in the individual's capabilities. This point may be illustrated by comparing the predictive validity coefficients of a well-known test of general mental ability, the Army General Classification Test, with that of a highly specialized aptitude test, the 1943 Pilot Stanine of the U. S. Army Air Forces. Their correlations with the criterion of graduation or elimination from complete pilot training were .31 and .66, respectively, in a sample of 1,080 essentially unselected applicants for aviation-cadet training.

The Assessment of Human Talent

In addition to the fact that highly specialized aptitude measures are likely to provide more accurate prediction of performance in different courses of study and job components than tests of general mental

ability, they identify individuals who are highly talented in one or more specific areas. Since the aptitude measures may be only loosely correlated, the top-scoring individuals in a group to which they are administered are not likely to be entirely the same from measure to measure. For example, if scores from two aptitude measures have a product-moment correlation coefficient of zero in a sample of 1,000 examinees, it is most likely that only ten of the top-scoring 100 examinees on the first measure will be among the top-scoring 100 examinees on the second measure. Thus, it is most probable that these two independent measures will identify 190 different examinees as being in the top 10 per cent of the sample with respect to one or the other of the two aptitudes. If ten independent aptitude measures were available, it is most probable that about 651 different individuals would be identified as being in the top 10 per cent of the sample with respect to at least one of the ten aptitudes.

The implications of these facts for the identification of human talents are extremely important. First, the abilities of critical importance in determining performance in various courses of study and in the basic tasks demanded in a wide variety of common jobs should be established. Second, highly specialized aptitude measures should be developed to predict performance in these courses of study and job tasks. Third, the resulting aptitude measures will be intercorrelated to an extent largely determined by the amount of overlapping in the abilities required by the kinds of performance being predicted. Fourth, whatever percentage of the American population at any given age level is defined as "talented" on a single variable, a considerably larger percentage of the population will be found to be "talented" on at least one of several socially important variables than the percentage originally defined as "talented." Thus, if the highest 10 per cent of the population is defined as "talented" in any given variable, a set of ten uncorrelated aptitude measures would be most likely to identify about 65 per cent of the population as "talented" in at least one of the ten aptitude measures.

In actual practice, it is probable that more than ten independent variables, each of high social importance or practical utility, exist. Some overlapping of abilities seems to be the rule in any large set of variables for predicting performances of high social utility. Thus, even with perfectly reliable aptitude measures, the percentage of the population most likely to be identified as in the top 10 per cent in at least one of ten variables will be lower than the 65 per cent so identified by completely independent measures. The effect of using imperfectly reliable tests will be to reduce even more the percentage correctly identified as in the top 10 per cent in at least one of the ten variables. Nonetheless, the principles stated have been shown to be of considerable value in identifying talented individuals.

Specialized aptitude tests in use at the present time include the Airman Qualifying Examination, which yields several aptitude

measures: the General Aptitude Index, the Administrative Aptitude Index, the Electronics Aptitude Index, and the Mechanical Aptitude Index of the U.S. Air Force.[1]

Identification of High-School Seniors with Exceptional Scientific Aptitudes

In the course of a research study made for the National Science Foundation, some interesting information about the scientific aptitudes of high-school seniors was obtained.[2] The data show the increases in percentages of male and female twelfth-grade pupils who may be regarded as talented when measures of scientific, technical, and quantitative aptitudes are used in conjunction with a measure of general academic aptitude.

When the cognitive tests for Project TALENT were planned, an effort was made to cover all of the important intellective abilities capable of satisfactory measurement by paper-and-pencil tests when given to large groups of examinees. Several of these tests were combined to create four separate a priori measures of aptitude: General Academic Aptitude (C-002), Quantitative Aptitude (C-004), Technical Aptitude (C-005), and Scientific Aptitude (C-006). The composition of these aptitude measures is shown in Appendix B-2. A description of the tests that comprise them was published in 1962.[3]

The measure of academic aptitude includes tests of verbal and numerical facility; verbal, quantitative, and nonverbal-nonquantitative reasoning; and specific information in English and mathematics. It is a highly reliable measure and is likely to predict over-all scholastic achievement rather closely. The measure of quantitative aptitude tests

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[1]These and some other aptitude measures used by the armed forces have been equated to the tests of Project TALENT. See Dailey, J. T.; Shaycoft, M. F.; and Orr, D. B. Calibration of Air Force Selection Tests to Project TALENT Norms. Final Report to the Air Force, Contract No. AF41(657)-324. Washington: American Institute for Research, 1962.

See also Shaycoft, M. F.; Neyman, C. A., Jr.; and Dailey, J. T. Comparison of Navy Recruits and Male High School Students on the Basis of Project TALENT Data. Final Report to the Navy, Contract No. Nonr-3482(00). Washington: American Institute for Research, 1962.

[2]Goldberg, I., and Dailey, J. T. Research on Academic Degree Projections. Final Report to the National Science Foundation, Contract No. NSF-C294. Washington: American Institute for Research, 1963.

[3]Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. "Design for a Study of American Youth," The Talents of American Youth, Vol. 1. Boston: Houghton Mifflin Co., 1962.

largely numerical facility and quantitative reasoning. The measure of technical aptitude tests principally specific information in scientific and mechanical fields that could be learned in school or through out-of-school activities. The measure of scientific aptitude includes those of quantitative aptitude and technical aptitude together with tests of verbal ability and of quantitative and nonverbal-nonquantitative reasoning. This aptitude index was constructed to predict performance in science courses at the college level. It is expected that follow-up studies now under way will permit empirical validation of the four aptitude measures.

When scores of approximately 60,000 high-school graduates who responded to the mail follow-up questionnaire sent to them about a year after their graduation were tabulated, it was found that fairly large percentages of the boys displayed considerable talent in comparison with all high-school seniors in the Quantitative, Technical, and Scientific Aptitude Composites. Table 4-1 shows that 20.6 per cent, 26.1 per cent, and 22.9 per cent, respectively, of the boys obtained scores above the 90th percentile of all high-school seniors on these three composites. The fact that girls do not ordinarily show as much interest in or score as well in quantitative and technical fields is well known. Nonetheless, it is surprising to find that only 0.9 per cent of the girls in this sample exceeded the 90th percentile of all high-school seniors on the Technical Aptitude Composite.

The extent to which the sample of respondents (who were all high-school graduates) is superior to all high-school seniors is shown by the fact that about 13 per cent of the sample obtained scores above the 90th percentile of all high-school seniors. That a larger proportion of boys than girls makes up this 13 per cent reflects, as mentioned previously, the differences in the interests and experiences of the two groups.

Table 4-2 shows the percentages of boys, of girls, and of all respondents to the questionnaire who obtained scores above three designated percentiles of all high-school seniors on one or more of the four aptitude composites. For example, 35.5 per cent of the boys obtained scores above the 90th percentile of all high-school seniors in at least one or more of the four composites. This percentage may be compared with the percentages of boys above the 90th percentiles of the aptitude composites taken separately. These data, shown in Table 4-1, are 16.3, 20.6, 26.1, and 22.9 for the General Academic, Quantitative, Technical, and Scientific Aptitude Composites, respectively. If the composites were entirely uncorrelated, the percentage of boys above the 90th percentile on one or more of the composites would be approximately 62.1.

These data show that the use of four composite scores, even when these are highly correlated, adds considerably to the proportion of a sample defined as talented. Thus, if examinees who obtain scores on the General Academic Aptitude Composite above the 90th percentile of

TABLE 4-1

Percentages of High-School Graduates Who Responded to the Follow-up Questionnaire and Who Obtained Scores Above Designated Percentiles of All High-School Seniors Tested in 1960 in Each One of Four Aptitude Measures[a]

Percentile in Distribution of All Grade-12 Pupils[b]	Academic Aptitude (C-002)			Quantitative Aptitude (C-004)			Technical Aptitude (C-005)			Scientific Aptitude (C-006)		
	Boys	Girls	Boys + Girls	Boys	Girls	Boys + Girls	Boys	Girls	Boys + Girls	Boys	Girls	Boys + Girls
90	16.3	10.4	13.1	20.6	6.9	13.2	26.1	0.9	12.5	22.9	4.6	13.1
75	36.3	27.5	31.6	42.9	21.1	31.1	55.9	7.3	29.8	46.4	18.1	31.2
50	62.2	56.7	59.2	69.4	48.5	58.2	83.0	31.2	55.1	72.1	45.9	58.0

[a] See Appendix B-2 for a detailed description.

[b] The weighted numbers of cases are 337,030 boys and 438,843 girls. These weighted numbers correct for over- and under-representation of certain types of schools in the TALENT sample. Thus, the weighted N's are comparable with one another, but their absolute values have no practical significance.

TABLE 4-2

Percentages of High-School Graduates Who Responded to the Mail Follow-up Questionnaire and Who Obtained Scores on at Least One Aptitude Measure[a] Above Designated Percentiles of All High-School Seniors Tested in 1960

Percentile in Distribution of All Grade-12 Pupils[b]	Percentage		
	Boys	Girls	Boys + Girls
90	35.5	11.7	22.7
75	64.2	30.4	46.0
50	87.7	62.5	74.1

[a] The aptitude measures were Academic Aptitude (C-002), Quantitative Aptitude (C-004), Technical Aptitude (C-005), and Scientific Aptitude (C-006). For a description of these composites see Appendix B-2.

[b] See footnote[b] to Table 4-1.

all high-school seniors are considered to be talented, 16.3 per cent of the boys in the sample of respondents fall into this category. If examinees who obtain scores in any one or more of the four composites are so defined, 35.5 per cent of the boys in this sample fall into this category. In other words, the percentage of boys identified as talented is slightly more than doubled. This gain constitutes about four-tenths of the maximum gain that would have been obtained had the composites been wholly uncorrelated.

Limitations of the Data

It must be remembered that the identification of large numbers of high-school graduates (especially boys) with considerable technical and scientific aptitude was accomplished with measures that are far from ideal. Though each of them unquestionably yields scores of high reliability, their correlations with socially important criteria, such as performance in courses of study or job tasks, have not yet been established. Furthermore, their intercorrelations are high. Tables 4-3 and 4-4 show their interrelationships in large samples of 15-year-old boys and girls in high school.

Implications

The fact that much larger percentages of the sample (especially boys) were identified as talented when four measures instead of one were used suggests that highly specialized aptitude tests of many kinds should be developed for the effective identification of talent. Each of these tests should yield scores that display the following characteristics: 1) serviceable ability to predict performance in at least one course of study or job task; 2) high reliability; 3) as small a correlation with each other aptitude test as can be obtained without sacrificing either predictive validity or accuracy of measurement; and 4) comparability in terms of some appropriate base group.

With a set of perhaps 20 to 30 such scores available, counselors could provide information of great value in educational and vocational guidance. It is expected that data being gathered by Project TALENT will make possible fairly complete specifications for the construction of such a set of practical aptitude measures within the next five years.

Summary

Human abilities are extremely diverse. Hence, to identify individuals who are highly talented requires the use of a large number of specialized tests. Since tests of this kind have been found to be

TABLE 4-3

Intercorrelations,[a] Means, and Standard Deviations of Four Aptitude Measures in a Sample of 3,373 Fifteen-Year-Old Boys in High School

	Aptitude Measure			
	Academic (C-002)	Quantitative (C-004)	Technical (C-005)	Scientific (C-006)
Academic		.89	.74	.94
Quantitative			.66	.88
Technical				.89
Mean	471.22	93.95	51.79	432.59
Standard Deviation	123.22	39.15	16.38	137.47

TABLE 4-4

Intercorrelations,[a] Means, and Standard Deviations of Four Aptitude Measures in a Sample of 3,829 Fifteen-Year-Old Girls in High School

	Aptitude Measure			
	Academic (C-002)	Quantitative (C-004)	Technical (C-005)	Scientific (C-006)
Academic		.88	.72	.95
Quantitative			.66	.89
Technical				.86
Mean	482.89	86.69	35.54	375.19
Standard Deviation	114.10	35.11	11.58	118.22

[a] Some of the intercorrelations are spuriously high (owing to correlations of errors) since the items in the four aptitude measures are not entirely different.

only loosely correlated, the top-scoring individuals in a group to which they are administered are not likely to be the same from test to test.

Four measures of aptitude were formed on an a priori basis by combining scores on a number of the tests used by Project TALENT. These constituted measures of General Academic Aptitude (C-002), Quantitative Aptitude (C-004), Technical Aptitude (C-005), and Scientific Aptitude (C-006). These four measures were constructed to predict performance in four different types of courses in college. Their capabilities for doing so have not yet been established but it is expected that this will be done.

When these four measures of aptitude are used to identify boys who were high-school graduates and whose scores were at or above the 90th percentile of the distribution of scores of all twelfth-grade pupils, the following percentages of the boys were identified: 16.3, 20.6, 26.1, and 22.9 for the academic, quantitative, technical, and scientific aptitude composites, respectively. To a considerable extent, different boys were identified by the four measures; in all, 35.5 per cent of the boys who were high-school graduates obtained scores above the 90th percentile of all high-school seniors in at least one of the four composites.

Thus, while 16.3 per cent were identified as above the 90th percentile in general academic aptitude, an additional 19.2 per cent were identified as equally deviant from the mean of high-school seniors with respect to their likelihood of success in three types of college courses requiring specialized aptitudes. This is the reward for using these three specialized aptitude tests in addition to a general aptitude test for identifying talented individuals.

It can be shown that if the four aptitude measures had been entirely uncorrelated, the percentage of these male high-school graduates who would have obtained scores above the 90th percentile of all high-school seniors on at least one of the four tests would have been 62.1. Thus, even the rather highly correlated four tests that were employed yielded about four-tenths of the maximum gain (from 16.3 to 62.1) that would have been yielded by using four uncorrelated aptitude composites.

The implications of these data for the identification of human talents are extremely important. First, the abilities of critical importance in determining performance in various courses of study and in the basic tasks demanded by a wide variety of jobs should be established. Second, highly specialized aptitude tests should be constructed to predict performance as accurately as possible in these courses of study and job tasks. Third, these tests should be of high reliability and should have intercorrelations as low as can be obtained by careful test construction without sacrifice of predictive validity. Fourth, the scores derived from these tests should be comparable in terms of some appropriate base group.

The availability of such a set of aptitude measures will be of great value in the identification of human talent and in educational and vocational guidance. It is hoped that it can be developed within the next five years on the basis of data obtained by Project TALENT.

Chapter 5

BACKGROUND, PLANS, AND ASPIRATIONS OF AMERICAN YOUTH

The Student Information Blank

Central to the identification, development, and utilization of the talents of high-school students is a consideration of their social, economic, and educational backgrounds. Their experiences and their aspirations for further education, for careers and employment, for financial and economic goals, and for family life hold important consequences for their development. The approximately 90,000 high-school seniors tested in the spring of 1960 by Project TALENT spent at least 80 minutes completing the Student Information Blank (SIB), which included 394 carefully selected questions regarding their background, plans, and aspirations. These questions were selected on the basis of previous research, the advice of the Project TALENT advisory panels; and a number of pilot studies conducted by the Project TALENT staff as those most relevant to the identification and development of the talents of high-school students.[1] Even 394 items cannot cover all of the important aspects of social and economic background, personal and educational experiences, and educational and vocational aspirations judged important. Furthermore, the Student Information Blank is a precoded, essentially self-administering questionnaire subject to all of the advantages and

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[1] The details of the development of the Student Information Blank are described by Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U.S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960. Chapter 8, Section III.

See also, Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. "Design for a Study of American Youth," The Talents of American Youth, Vol. 1. Boston: Houghton Mifflin Co., 1962. Chapter 9.

disadvantages of this type of instrument.[1] Nonetheless, invaluable information has been collected. The organization of the SIB is shown in Table 5-1.

In constructing the Student Information Blank, care was taken to keep the vocabulary and complexity-of-expression levels simple enough so that typical eighth-grade students could read it without difficulty. Tryouts of the SIB items indicated that most of the students would be able to answer 394 items in 80 minutes if they worked steadily. Table 5-2 shows the percentages of twelfth-grade boys and of girls who answered selected items when the final form of the SIB was administered. After item 300, the percentages answering drop off considerably. Table 5-3 shows the percentages of boys and of girls in each tenth of the distribution of scores on aptitude-composite C-013 who answered selected items on the SIB. These data indicate clearly that the higher a student's aptitude score, the more items he is likely to reach in the time limit. Consequently, the percentages tabulated in Table 5-4 become more and more heavily weighted with the responses of students at the higher aptitude levels as item numbers increase. This fact should be kept in mind as the data are perused.

Responses in Grade 12 to the Student Information Blank

Introduction

Fifty-one per cent of the twelfth graders were boys and 49 per cent were girls. The median age was just under 18 years. Table 5-4 shows the percentages of boys and of girls in grade 12 who marked each choice for each of the 394 SIB items. The weighted frequencies, in hundreds, of boys and of girls who responded to each item are also shown. For purposes of discussion, related items have been grouped.

Student Characteristics

Activities. Items 1-50 inquired about the students' memberships in organizations, their hobbies, their work or chores, and their sources of funds. The percentages of boys and of girls who have been associated with various types of organizations (items 1-10) are as follows:

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[1] A copy of the answer sheet used for the Student Information Blank is shown in: Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960.

Item Number		Percentage Boys	Girls
1.	School newspaper, magazine, or annual	28	42
2.	Subject-matter clubs	37	37
3.	Debating, dramatic, or music clubs	38	54
4.	Hobby clubs (photography, etc.)	38	16
5.	Farm youth groups	23	24
6.	Church, religious, or charitable organizations	68	77
7.	Informal neighborhood groups	50	45
8.	Political clubs	9	5
9.	Social clubs, fraternities, or sororities	23	32
10.	Military or drill groups	15	7

Questions about the number of times the students have been heads of organizations show that about 45 per cent have been head of a non-athletic organization and about 37 per cent have been captain of an athletic team. Sixty-four per cent of the boys and 76 per cent of the girls have been an officer or committee chairman in some organization. Large percentages have been members of groups sponsored by churches or other religious organizations.

The percentages of boys and of girls who have participated at least to some extent in a number of sports and hobbies are shown below (arranged in order of frequency of boys' participation):

Item Number		Percentage Boys	Girls
31.	Golf, tennis, swimming	95	93
27.	Baseball, football, basketball	93	80
33.	Bicycling, ice skating, skiing, canoeing, or horseback riding	92	92
29.	Hunting or fishing	91	59
32.	Hockey, lacrosse, handball, boxing, wrestling, track, field events	87	42
30.	Concerts, lectures, plays, ballet, art galleries, museums	81	90
23.	Mechanical or auto repair	77	11
24.	Raising or caring for animals or pets	75	78
26.	Cooking	69	97
17.	Building models (airplanes, ships, etc.)	68	14
21.	Cabinet making, woodworking	65	10
20.	Making or repairing electrical or electronic equipment	63	10
14.	Drawing, painting, sculpturing, decorating	62	73
28.	Gardening	60	73
22.	Metal working	58	7
16.	Collecting stamps, coins, rocks, insects, etc.	54	40
15.	Acting, singing, dancing for public performance	51	68
18.	Photography	38	22
19.	Making jewelry, pottery, or leather work	35	41
25.	Sewing, knitting, crocheting, embroidering	14	93

TABLE 5-1

The Content of the Student Information Blank by Topic

Topic and Description of SIB Items	Item Nos.
General experiences	
Organizational memberships and offices	1-13; 230, 231
Hobbies, interests, activities	14-33
Work experiences	34-46
Sources of spending money	47-50
Social and dating experience	51-55; 229
Reading (amount and type)	56-64
Awards received	284-291
Driving experiences, driver training	292-296
Educational and guidance experiences	
Study habits and attitudes	65-90; 97
High-school curriculum, courses taken and grades received	91; 98-113
Transfers, age started first grade, semesters missed, days absent (1959)	92-96
Guidance sources for educational and vocational plans, and for high-school work and personal problems	114-129
Family background	
Relationship to breadwinner and heads of household	130; 220
Father's occupation and other employment characteristics	131-133; 206, 207, 213
Mother's occupation and other employment characteristics	134, 135, 208, 209, 214
Parents' education, organizational memberships, foreign language fluency, foreign versus native born, ages	137-166; 215, 216, 218, 219
Father's military service branch and highest rank	136; 217
Family income and finances	173-175
Housing -- renting or buying; present value, number of rooms, and number of persons	225, 226; 170-172
Mobility	167-169; 224
Magazines and books	176-189
Consumer articles and appliances in the home	190-197
Automobiles owned	198, 199
Number, position, and education of siblings; multiple birth	200-205; 221-223
Health, height, and weight	227, 228; 241-283
Educational plans and aspirations	
College field choice	210
Type and level of education planned	237; 297-305; 394
Reasons for or against college	307-332
Attitudes toward college	333-338
Miscellaneous -- number of applications, distance, residence	390-393
Financing college	
Interest in obtaining a loan for college	306; 375-38
Expected costs for tuition, books, and fees; and for living expenses	382; 383
Expected sources of support	384-389
Occupational plans and aspirations	
Occupations planned and preferred	211, 212
Occupational choice process and values	347-361
Military service plans, aspirations, and motivations	
Preference for branch of service; means of entering the service	232-236
Plans and preference for a military career; length of enlistment	339-346
Economic and financial aspirations	
Aspirations for income and financial standing	239, 240; 363
Financial behavior, hopes, and expectations regarding insurance, savings, real estate, installment buying, and saving	364-374
Marriage and family	
Marriage plans -- age	238
Number of children	362

TABLE 5-2

Percentage of Twelfth-Grade Males and Females Who Answered Selected SIB Items

Sex	SIB Item Numbers								
	1	100	150	200	250	300	350	374	Weighted N in Hundreds
	Percentage								
Males	99.7	98.6	96.2	98.5	94.8	90.5	75.6	64.1	6335
Females	99.8	98.7	96.6	99.1	97.8	95.4	85.3	75.5	6706

TABLE 5-3

Percentage of Twelfth-Grade Males and Females in Each of Ten Aptitude Groups Who Answered Selected SIB Items (10-Per-Cent Subsample)[a]

Aptitude Percentile Rank[b]	SIB Item Number							
	1	100	150	200	250	300	350	374
	Percentage of Twelfth-Grade Males							
90.0-99.9	99.7	100.0	99.1	99.7	98.4	97.6	90.0	78.8
80.0-89.9	99.7	100.0	98.3	98.7	97.6	94.8	87.1	77.8
70.0-79.9	100.0	100.0	98.9	99.4	98.0	95.8	82.7	67.6
60.0-69.9	100.0	99.6	99.3	99.3	98.8	93.8	81.1	69.0
50.0-59.9	100.0	99.6	99.2	99.6	94.9	94.2	79.0	66.6
40.0-49.9	100.0	99.6	97.4	99.6	97.8	93.5	83.7	73.1
30.0-39.9	99.6	99.4	98.2	99.6	94.8	94.1	79.8	63.6
20.0-29.9	100.0	99.6	97.8	98.8	95.7	90.3	71.4	58.6
10.0-19.9	100.0	99.1	98.9	98.9	96.0	90.0	69.1	60.0
0.0- 9.9	99.3	96.8	96.0	95.7	87.6	77.5	60.2	52.2
	Percentage of Twelfth-Grade Females							
90.0-99.9	99.6	99.8	98.7	100.0	99.6	99.6	95.6	84.3
80.0-89.9	99.7	99.4	98.0	99.2	99.4	99.3	95.5	85.3
70.0-79.9	100.0	100.0	98.4	100.0	99.0	98.4	93.4	84.8
60.0-69.9	100.0	100.0	98.6	100.0	100.0	100.0	95.4	84.8
50.0-59.9	100.0	99.0	97.8	99.7	99.4	97.3	92.8	83.8
40.0-49.9	100.0	100.0	97.1	100.0	100.0	97.6	88.3	75.0
30.0-39.9	100.0	100.0	97.3	98.2	100.0	99.5	88.5	77.7
20.0-29.9	100.0	99.3	98.1	100.0	98.9	95.8	83.4	74.6
10.0-19.9	100.0	100.0	95.1	98.7	94.2	90.2	78.5	64.0
0.0- 9.9	100.0	96.0	97.7	98.4	92.6	83.8	56.9	47.1

a/Subsample 0 weighted N is 58,767 for males and 57,181 for females.

b/Aptitude Composite (C-013). See Appendix B-2 for a description of this measure.

TABLE 5-4

Percentage[a] of Responses of Twelfth-Grade Males and Females to 394 Items in the Student Information Blank and the Weighted Number[b] in Hundreds Answering Each Item

STUDENT INFORMATION BLANK

Part I: ACTIVITIES

Directions: The questions in this part are about things you have done. Answer each question sincerely and thoughtfully. Each question has *one answer* and *only one answer*. Answer every question even if you are not sure of your answer. Now, go ahead and answer the questions.

Organizations

Items 1-10. How active have you been in any one or more of the following organizations?

M	F	
		1. School newspaper, magazine, or annual
5.1	11.0	A. Extremely active
5.1	11.0	B. Very active
10.4	14.3	C. Fairly active
3.6	3.7	D. A member, but not very active
2.2	1.9	E. A member, but rarely active
72.6	58.2	F. Not a member of any of these organizations
6316	6693	Weighted N
		2. School subject matter clubs, such as science, mathematics, language, or history clubs
3.2	3.3	A. Extremely active
7.2	8.4	B. Very active
15.1	15.8	C. Fairly active
6.7	5.8	D. A member, but not very active
5.2	3.7	E. A member, but rarely active
62.6	63.0	F. Not a member of any of these organizations
6303	6677	Weighted N
		3. Debating, dramatics, or musical clubs or organizations
8.1	13.6	A. Extremely active
8.9	15.3	B. Very active
12.1	17.4	C. Fairly active
4.5	4.8	D. A member, but not very active
4.0	3.3	E. A member, but rarely active
62.3	45.6	F. Not a member of any of these organizations
6296	6674	Weighted N
		4. Hobby clubs, such as photography, model building, hot rod, electronics, woodworking, crafts, etc.
6.9	2.0	A. Extremely active
9.2	3.6	B. Very active
12.8	6.6	C. Fairly active
4.8	2.0	D. A member, but not very active
3.7	2.0	E. A member, but rarely active
62.5	83.7	F. Not a member of any of these organizations
6295	6673	Weighted N
		5. Farm youth groups, such as 4-H club, Future Farmers of America, etc.
5.4	4.9	A. Extremely active
5.7	6.6	B. Very active
6.2	7.8	C. Fairly active
2.9	2.7	D. A member, but not very active
2.3	2.1	E. A member, but rarely active
77.4	75.8	F. Not a member of any of these organizations
6298	6667	Weighted N
		6. Church, religious, or charitable organization, such as Catholic Youth of America, B'nai B'rith Youth Organization, Protestant youth group; organized non-school youth groups such as YMCA, YWCA, Hi-Y, Boy's Club, etc.
12.9	20.6	A. Extremely active
16.4	20.6	B. Very active
21.5	21.8	C. Fairly active
10.1	8.3	D. A member, but not very active
6.8	5.4	E. A member, but rarely active
32.2	23.2	F. Not a member of any of these organizations
6286	6672	Weighted N
		7. Informal neighborhood group
7.2	6.4	A. Extremely active
13.8	15.1	B. Very active
18.4	17.4	C. Fairly active
5.9	3.5	D. A member, but not very active
4.4	2.7	E. A member, but rarely active
50.3	54.8	F. Not a member of any of these organizations
6269	6651	Weighted N
		8. Political club, such as Young Democrats or Republicans
.9	.6	A. Extremely active
1.5	1.0	B. Very active
2.4	1.5	C. Fairly active
1.9	.7	D. A member, but not very active
2.0	1.0	E. A member, but rarely active
91.4	95.3	F. Not a member of any of these organizations
6291	6664	Weighted N
		9. Social clubs, fraternities, or sororities
4.6	8.3	A. Extremely active
5.8	10.1	B. Very active
6.7	9.0	C. Fairly active
2.8	2.3	D. A member, but not very active
2.7	1.9	E. A member, but rarely active
77.4	68.5	F. Not a member of any of these organizations
6229	6613	Weighted N
		10. Military or drill units
5.1	2.3	A. Extremely active
3.4	1.7	B. Very active
2.9	1.5	C. Fairly active
1.6	.6	D. A member, but not very active
1.7	.8	E. A member, but rarely active
85.3	93.2	F. Not a member of any of these organizations
6286	6664	Weighted N
		11. How many times have you been president of a class, a club, or other organization (other than athletic) in the last 3 years?
55.1	55.5	A. None
18.7	19.5	B. Once
12.1	11.6	C. Twice
5.3	5.3	D. Three times
2.6	2.7	E. Four times
6.2	5.4	F. Five or more times
6307	6683	Weighted N

a/Percentages add to 100.0 within the limits of rounding error.
b/Set "A" weights were used.

M	F	12. How many times have you been an officer or committee chairman (other than president) of a class, a club, or other organization (other than athletic) in the last 3 years?
35.9	23.8	A. None
19.1	17.6	B. Once
17.4	17.9	C. Twice
10.4	13.1	D. Three times
5.8	9.3	E. Four times
11.3	18.4	F. Five or more times
6297	6681	Weighted N

M	F	13. How many times in the last 3 years have you been captain of an athletic team?
65.1	62.0	A. None
13.7	12.2	B. Once
7.6	7.6	C. Twice
3.0	3.4	D. Three times
1.5	2.2	E. Four times
9.1	12.7	F. Five or more times
6302	6679	Weighted N

Hobbies

Items 14-29. How often have you done any one or more of the following in the past 3 years? Include extra-curricular activities at school, but do not include things done for school assignments. In each group of activities, answer for *one* or *more* in the group.

M	F	14. Drawing, painting, sculpting, or decorating
8.0	12.3	A. Very often
10.0	13.2	B. Often
21.2	26.6	C. Occasionally
22.9	21.1	D. Rarely
38.0	26.9	E. Never
6293	6674	Weighted N

M	F	15. Acting, singing, or dancing for a public performance
7.1	14.5	A. Very often
9.7	15.2	B. Often
16.7	21.6	C. Occasionally
17.7	16.7	D. Rarely
48.9	32.0	E. Never
6286	6671	Weighted N

M	F	16. Collecting stamps, coins, rocks, insects, etc.
5.8	3.0	A. Very often
9.0	6.0	B. Often
19.1	13.3	C. Occasionally
19.6	17.2	D. Rarely
46.4	60.4	E. Never
6282	6664	Weighted N

M	F	17. Building model airplanes, ships, trains, cars, etc.
8.4	.4	A. Very often
13.2	1.1	B. Often
26.1	3.8	C. Occasionally
20.7	9.2	D. Rarely
31.6	85.5	E. Never
6285	6671	Weighted N

M	F	18. Working with photographic equipment (do not include taking occasional snapshots)
4.1	1.4	A. Very often
5.7	2.7	B. Often
11.1	6.5	C. Occasionally
16.6	11.0	D. Rarely
62.4	78.3	E. Never
6303	6686	Weighted N

M	F	19. Making jewelry, pottery, or leather work
1.6	1.7	A. Very often
3.6	4.4	B. Often
10.9	14.2	C. Occasionally
19.2	20.5	D. Rarely
64.7	59.3	E. Never
6280	6659	Weighted N

M	F	20. Making or repairing electrical or electronic equipment
6.8	.2	A. Very often
11.9	.6	B. Often
23.5	3.0	C. Occasionally
20.8	6.3	D. Rarely
37.0	89.8	E. Never
6271	6657	Weighted N

M	F	21. Cabinet making or woodworking
6.7	.2	A. Very often
13.2	.7	B. Often
23.2	2.6	C. Occasionally
21.7	6.6	D. Rarely
35.2	90.0	E. Never
6268	6646	Weighted N

M	F	22. Metal working
6.5	.3	A. Very often
11.7	.6	B. Often
19.3	1.7	C. Occasionally
20.7	4.2	D. Rarely
41.8	93.2	E. Never
6268	6635	Weighted N

M	F	23. Mechanical or auto repair
18.1	.9	A. Very often
18.9	1.4	B. Often
24.0	3.2	C. Occasionally
16.1	5.9	D. Rarely
22.9	88.6	E. Never
6277	6624	Weighted N

M	F	24. Raising or caring for animals or pets
16.4	22.2	A. Very often
19.3	21.8	B. Often
21.2	22.3	C. Occasionally
17.7	11.6	D. Rarely
25.4	22.1	E. Never
6275	6641	Weighted N

M	F	25. Sewing, knitting, crocheting, or embroidering
1.0	29.5	A. Very often
1.5	27.2	B. Often
3.7	26.5	C. Occasionally
8.2	9.6	D. Rarely
85.6	7.2	E. Never
6264	6663	Weighted N

M	F	26. Cooking
5.8	46.3	A. Very often
11.6	28.6	B. Often
27.1	17.8	C. Occasionally
24.4	4.4	D. Rarely
31.1	2.9	E. Never
6255	6661	Weighted N

M	F	27. Playing baseball, football, or basketball
45.6	13.4	A. Very often
21.4	19.5	B. Often
18.4	27.8	C. Occasionally
7.9	19.4	D. Rarely
6.7	19.9	E. Never
6277	6652	Weighted N

M	F	28. Gardening, raising flowers or raising vegetables
6.2	8.8	A. Very often
11.6	16.9	B. Often
18.8	25.1	C. Occasionally
22.9	22.7	D. Rarely
40.5	26.6	E. Never
6260	6651	Weighted N

M	F	29. Hunting or fishing
34.6	4.3	A. Very often
24.4	9.0	B. Often
21.1	20.6	C. Occasionally
10.8	24.8	D. Rarely
9.1	41.3	E. Never
6277	6645	Weighted N

Items 30-33. How often have you done any one or more of the following in the past 3 years?

M	F		
		30.	Attending concerts, lectures, plays (not motion pictures), ballet; visiting art galleries or museums
6.2	10.5		A. Very often
12.7	18.2		B. Often
29.3	34.4		C. Occasionally
22.8	18.3		D. Rarely
10.1	8.1		E. Only once
18.9	10.4		F. Never
6283	6658		Weighted N
		31.	Playing golf or tennis; swimming
27.1	27.6		A. Very often
31.8	30.3		B. Often
24.4	22.7		C. Occasionally
8.9	9.3		D. Rarely
2.7	3.2		E. Only once
5.1	7.0		F. Never
6285	6664		Weighted N
		32.	Playing hockey, lacrosse, or handball; boxing, wrestling, track, field events
17.6	3.3		A. Very often
21.5	5.9		B. Often
24.8	10.8		C. Occasionally
15.8	12.2		D. Rarely
7.2	9.5		E. Only once
13.0	58.3		F. Never
6278	6656		Weighted N
		33.	Going bicycling, ice skating, skiing, canoeing, horseback riding
19.7	23.2		A. Very often
24.5	24.2		B. Often
27.1	27.0		C. Occasionally
14.3	11.6		D. Rarely
6.2	6.1		E. Only once
8.3	7.9		F. Never
6212	6550		Weighted N

Work

		34.	On the average, how many hours a week do you spend doing chores around the house?
5.4	1.7		A. None
34.6	17.9		B. One to three
26.9	27.0		C. Four to six
13.6	20.4		D. Seven to nine
8.4	16.7		E. Ten to twelve
11.1	16.2		F. Thirteen or more
6276	6661		Weighted N
4.6	7.0		Median
		35.	How old were you when you first started earning money? *Do not count money earned for doing chores around your own home.*
3.6	12.6		A. I have not done this.
17.6	6.7		B. 10 or younger
28.2	17.1		C. 11 or 12
30.0	27.8		D. 13 or 14
17.8	29.6		E. 15 or 16
2.8	6.3		F. 17 or older
6286	6682		Weighted N
12.5	13.5		Median
		36.	How many summers have you had a regular job for which you were paid? *Do not count money earned for doing chores around your own home.*
13.5	38.2		A. None
17.5	27.5		B. One
20.9	17.2		C. Two
19.5	9.3		D. Three
13.8	4.2		E. Four
14.8	3.6		F. Five or more
6274	6667		Weighted N

M	F		
		37.	During the school year, about how many hours a week do you work for pay? *Do not include chores done around your own home.*
35.2	48.9		A. None
14.2	17.3		B. About 1-5 hours
12.0	10.3		C. About 6-10 hours
9.3	7.7		D. About 11-15 hours
10.1	7.6		E. About 16-20 hours
19.1	8.2		F. About 21 hours or more
6266	6661		Weighted N
5.8	1.2		Median

Items 38-46. How often have you done each of the following kinds of part-time or summer work for pay in the past 3 years?

		38.	Delivering newspapers, baby-sitting, mowing lawns, house cleaning, etc.
15.1	29.9		A. Very often
17.9	24.3		B. Often
24.3	23.2		C. Occasionally
17.4	10.0		D. Rarely
25.3	12.6		E. Never
6266	6656		Weighted N
		39.	Clerical work; typing, filing, etc.
2.3	7.6		A. Very often
3.5	7.6		B. Often
6.0	10.2		C. Occasionally
10.3	10.3		D. Rarely
77.8	64.4		E. Never
6261	6654		Weighted N
		40.	Farm work or orchard work
15.7	3.7		A. Very often
11.5	3.9		B. Often
12.4	5.3		C. Occasionally
11.7	6.5		D. Rarely
48.7	80.6		E. Never
6251	6646		Weighted N
		41.	Assistant in a science laboratory
1.1	.8		A. Very often
1.5	.3		B. Often
2.2	.6		C. Occasionally
3.9	1.2		D. Rarely
91.4	97.1		E. Never
6246	6637		Weighted N
		42.	Factory work
3.6	1.3		A. Very often
3.9	1.2		B. Often
4.6	1.1		C. Occasionally
5.2	1.4		D. Rarely
82.6	95.0		E. Never
6231	6623		Weighted N
		43.	Retail store work; stockwork, delivery, clean up, etc.
17.8	6.3		A. Very often
13.6	5.3		B. Often
13.0	6.3		C. Occasionally
9.5	4.9		D. Rarely
46.2	77.3		E. Never
6006	6374		Weighted N
		44.	Sales work
8.9	11.0		A. Very often
8.9	8.4		B. Often
10.6	8.4		C. Occasionally
10.0	5.4		D. Rarely
61.6	66.8		E. Never
6217	6607		Weighted N
		45.	Camp counselor
3.9	3.1		A. Very often
3.9	2.7		B. Often
5.5	3.9		C. Occasionally
5.3	3.2		D. Rarely
81.3	87.0		E. Never
6188	6606		Weighted N

M	F		
28.9	15.9	46. Other work for pay	
		A.	Very often
19.9	12.0	B.	Often
22.7	17.9	C.	Occasionally
8.9	10.1	D.	Rarely
19.6	44.1	E.	Never
6213	6592		Weighted N

Items 47-50. What per cent of your spending money comes from each of these sources? *Choose the closest answer.*

		47. Regular allowance	
56.8	52.8	A.	0 per cent
13.0	12.1	B.	20 per cent
7.8	7.1	C.	40 per cent
6.8	6.3	D.	60 per cent
7.6	10.7	E.	80 per cent
8.0	11.1	F.	100 per cent
6221	6595		Weighted N
		48. From family, as I need it	
33.8	21.7	A.	0 per cent
31.9	27.7	B.	20 per cent
10.1	10.2	C.	40 per cent
7.7	8.3	D.	60 per cent
7.9	12.9	E.	80 per cent
8.7	19.2	F.	100 per cent
6214	6598		Weighted N
		49. From a job	
21.3	38.4	A.	0 per cent
14.6	16.6	B.	20 per cent
9.5	7.8	C.	40 per cent
10.4	7.5	D.	60 per cent
19.0	13.1	E.	80 per cent
25.2	16.6	F.	100 per cent
6161	6570		Weighted N
		50. Some other source	
59.2	65.3	A.	0 per cent
20.5	17.4	B.	20 per cent
6.0	4.7	C.	40 per cent
3.9	2.9	D.	60 per cent
3.7	2.6	E.	80 per cent
6.8	7.1	F.	100 per cent
6187	6572		Weighted N

Social

		51. How old were you when you first went out on a date?	
5.4	3.4	A.	I have never had a date.
15.5	10.2	B.	12 or younger
40.4	46.0	C.	13 or 14
22.1	25.4	D.	15
12.7	12.1	E.	16
3.8	3.0	F.	17 or older
6277	6656		Weighted N
13.9	14.1		Median
		52. On the average, how many dates do you have in a week?	
17.2	14.5	A.	I never have dates.
39.5	28.5	B.	About 1
24.0	25.9	C.	About 2
13.2	21.6	D.	About 3
4.4	7.4	E.	About 4 or 5
1.7	2.0	F.	About 6 or 7
6229	6581		Weighted N
1.3	1.8		Median
		53. During the school year, on what days are you usually permitted to go out in the evening for fun (until 8 P.M. or later)?	
1.5	1.6	A.	Saturdays only
17.7	19.7	B.	Fridays and Saturdays only
20.5	32.1	C.	Fridays, Saturdays, and Sundays only
55.6	40.2	D.	Any day
3.6	5.5	E.	Only for very special occasions
1.2	.9	F.	Never
6254	6617		Weighted N

M	F		
		54. How many times have you gone "steady" in the past three years?	
40.1	31.8	A.	None
29.9	32.1	B.	Once
16.1	19.9	C.	Twice
7.2	9.6	D.	Three times
2.8	3.9	E.	Four times
3.8	3.7	F.	Five or more times
6255	6633		Weighted N
.8	1.1		Median
		55. On the average, how many evenings a week during the school year do you usually go out for fun and recreation?	
9.3	10.5	A.	Less than one
14.5	18.7	B.	One
27.5	30.4	C.	Two
26.0	26.5	D.	Three
14.0	11.1	E.	Four or five
8.6	2.8	F.	Six or seven
6256	6627		Weighted N
2.5	2.2		Median

Reading

		56. How many books have you read (not including those required for school) in the past 12 months? *Don't count magazines or comic books.*	
15.5	8.8	A.	None
41.7	40.7	B.	1 to 5
18.3	21.1	C.	6 to 10
9.3	10.6	D.	11 to 15
5.5	7.5	E.	16 to 20
9.7	11.3	F.	21 or more
6273	6644		Weighted N
4.6	5.6		Median

Items 57-64. How many books or magazines have you read in each of the following groups (not including those required for school) in the past 12 months?

		57. Western stories, adventure stories, or mystery stories (not comic books)	
27.2	34.7	A.	None
19.6	21.7	B.	1
16.4	14.6	C.	2
9.5	8.4	D.	3
5.5	5.2	E.	4
21.8	15.4	F.	5 or more
6253	6628		Weighted N
		58. Science fiction books or magazines (not comic books)	
40.8	58.2	A.	None
20.0	16.0	B.	1
14.0	8.5	C.	2
7.6	4.5	D.	3
4.7	3.2	E.	4
13.0	9.6	F.	5 or more
6244	6623		Weighted N
		59. Science—non-fiction	
49.7	66.4	A.	None
19.3	14.6	B.	1
11.6	7.2	C.	2
6.5	4.1	D.	3
4.0	2.4	E.	4
8.9	5.3	F.	5 or more
6217	6602		Weighted N
		60. Plays, poetry, essays, literary criticism, or classics	
52.4	32.9	A.	None
17.9	20.3	B.	1
11.3	15.4	C.	2
6.3	9.4	D.	3
3.7	6.7	E.	4
8.4	15.3	F.	5 or more
6210	6600		Weighted N

M	F		
		61.	Politics, world affairs, biography, autobiography, historical novels
39.1	31.8	A.	None
20.5	21.4	B.	1
14.8	15.8	C.	2
7.9	10.0	D.	3
5.0	6.9	E.	4
12.7	14.1	F.	5 or more
6197	6591		Weighted N
		62.	Religious books or magazines
48.9	28.4	A.	None
21.2	24.3	B.	1
11.5	15.9	C.	2
5.6	8.9	D.	3
3.3	6.3	E.	4
9.4	16.2	F.	5 or more
6212	6596		Weighted N
		63.	Comic books
43.4	45.8	A.	None
8.5	10.5	B.	1
7.7	8.1	C.	2
4.8	4.7	D.	3
3.5	4.0	E.	4
32.0	26.9	F.	5 or more
6235	6609		Weighted N
		64.	Love stories
68.2	22.6	A.	None
11.9	15.3	B.	1
6.8	13.4	C.	2
3.7	8.3	D.	3
1.9	6.7	E.	4
7.5	33.7	F.	5 or more
6236	6612		Weighted N

Studying

Items 65-90. For the following statements indicate how often each one applies to you. Please answer the questions sincerely. Your answers will not affect your grades in any way.

		65.	I do a little more than the course requires.
9.0	10.2	A.	Almost always
18.3	22.2	B.	Most of the time
26.0	28.9	C.	About half the time
35.2	31.3	D.	Not very often
11.6	7.3	E.	Almost never
6264	6643		Weighted N
		66.	I have a difficult time expressing myself in written reports, examinations, and assignments.
11.2	10.9	A.	Almost always
16.6	16.4	B.	Most of the time
20.3	20.0	C.	About half the time
33.2	33.4	D.	Not very often
18.8	19.4	E.	Almost never
6264	6640		Weighted N
		67.	Being a fast reader helps me complete my lessons quickly.
16.2	20.5	A.	Almost always
21.0	23.8	B.	Most of the time
19.3	18.2	C.	About half the time
26.9	24.5	D.	Not very often
16.6	13.0	E.	Almost never
6060	6493		Weighted N
		68.	My grades reflect my ability fairly accurately.
10.4	18.7	A.	Almost always
25.3	36.4	B.	Most of the time
24.5	23.3	C.	About half the time
26.0	15.9	D.	Not very often
13.8	15.7	E.	Almost never
6239	6611		Weighted N

M	F		
		69.	I make sure that I understand what I am to do before I start an assignment.
29.3	40.6	A.	Almost always
41.0	41.4	B.	Most of the time
19.0	12.7	C.	About half the time
7.9	4.2	D.	Not very often
2.8	1.1	E.	Almost never
6241	6630		Weighted N
		70.	I seem to accomplish very little compared to the amount of time I spend studying.
5.8	5.8	A.	Almost always
13.0	12.0	B.	Most of the time
20.9	19.0	C.	About half the time
39.0	43.0	D.	Not very often
21.3	20.2	E.	Almost never
6175	6536		Weighted N
		71.	Lack of interest in my school work makes it difficult for me to keep my attention on what I am doing.
13.3	7.9	A.	Almost always
16.5	10.8	B.	Most of the time
23.4	18.2	C.	About half the time
30.2	36.4	D.	Not very often
16.6	26.7	E.	Almost never
6232	6617		Weighted N
		72.	I enjoy writing reports or compositions.
8.6	16.0	A.	Almost always
14.9	18.2	B.	Most of the time
19.1	18.2	C.	About half the time
27.1	24.0	D.	Not very often
30.3	23.6	E.	Almost never
6246	6625		Weighted N
		73.	Failure to pay attention in class has caused my marks to be lowered.
6.6	3.3	A.	Almost always
12.4	6.0	B.	Most of the time
19.9	12.1	C.	About half the time
37.4	38.8	D.	Not very often
23.7	39.8	E.	Almost never
6239	6629		Weighted N
		74.	I consider a very difficult assignment a challenge to my abilities.
14.9	18.2	A.	Almost always
28.2	30.2	B.	Most of the time
28.8	26.3	C.	About half the time
20.2	19.1	D.	Not very often
8.0	6.2	E.	Almost never
6220	6579		Weighted N
		75.	I do my assignments so quickly that I don't do my best work.
7.4	3.1	A.	Almost always
15.4	7.6	B.	Most of the time
25.7	19.0	C.	About half the time
38.4	49.5	D.	Not very often
13.0	20.8	E.	Almost never
6228	6620		Weighted N
		76.	I have missed assignments or other important things that the teacher has said, because I was not paying attention.
3.5	1.3	A.	Almost always
7.8	2.9	B.	Most of the time
16.4	7.9	C.	About half the time
45.6	43.5	D.	Not very often
26.8	44.4	E.	Almost never
6245	6639		Weighted N
		77.	My teachers have criticized me for turning in a sloppy assignment.
2.8	1.0	A.	Almost always
5.7	1.1	B.	Most of the time
10.7	2.4	C.	About half the time
36.9	19.2	D.	Not very often
44.0	76.4	E.	Almost never
6249	6656		Weighted N

M	F		
		78.	**Unless I really like a course, I do only enough to get by.**
17.7	8.1		**A. Almost always**
19.7	10.8		**B. Most of the time**
22.0	18.2		**C. About half the time**
25.8	33.4		**D. Not very often**
14.8	29.5		**E. Almost never**
6244	6628		Weighted N
		79.	**I have difficulty with the mechanics of English composition.**
17.4	9.3		**A. Almost always**
18.3	11.8		**B. Most of the time**
24.6	21.3		**C. About half the time**
26.3	34.1		**D. Not very often**
13.4	23.5		**E. Almost never**
6250	6629		Weighted N
		80.	**In class I can't seem to keep my mind on what the teacher is saying.**
5.8	3.3		**A. Almost always**
11.8	6.2		**B. Most of the time**
24.2	18.4		**C. About half the time**
43.5	49.8		**D. Not very often**
14.7	22.3		**E. Almost never**
6253	6640		Weighted N
		81.	**I get behind in my school assignments.**
4.4	1.7		**A. Almost always**
8.4	3.0		**B. Most of the time**
16.8	8.0		**C. About half the time**
43.4	40.7		**D. Not very often**
26.9	46.6		**E. Almost never**
6261	6646		Weighted N
		82.	**My grades on written examinations or reports have been lowered because of careless errors in spelling, grammar, or punctuation**
7.9	3.8		**A. Almost always**
14.0	6.5		**B. Most of the time**
22.2	15.4		**C. About half the time**
35.8	38.1		**D. Not very often**
20.1	36.3		**E. Almost never**
6254	6641		Weighted N
		83.	**Slow reading holds me back in my school work.**
8.1	4.8		**A. Almost always**
10.1	6.1		**B. Most of the time**
14.4	10.6		**C. About half the time**
27.9	27.3		**D. Not very often**
39.4	51.2		**E. Almost never**
6262	6647		Weighted N
		84.	**I pronounce the words to myself as I am reading.**
17.6	21.5		**A. Almost always**
20.1	22.0		**B. Most of the time**
21.6	18.9		**C. About half the time**
19.2	16.1		**D. Not very often**
21.6	21.6		**E. Almost never**
6244	6616		Weighted N
		85.	**I feel that I am taking courses that will not help me much in an occupation after I leave school.**
13.7	13.8		**A. Almost always**
15.3	11.1		**B. Most of the time**
18.2	12.9		**C. About half the time**
24.2	20.9		**D. Not very often**
28.8	41.3		**E. Almost never**
6217	6584		Weighted N
		86.	**When studying for a test, I am able to pick out important points to learn.**
19.4	23.3		**A. Almost always**
38.5	40.4		**B. Most of the time**
26.3	23.9		**C. About half the time**
11.3	8.9		**D. Not very often**
4.5	3.5		**E. Almost never**
6215	6605		Weighted N

M	F		
		87.	**I don't seem to be able to concentrate on what I read. My mind wanders and many things distract me.**
9.9	8.2		**A. Almost always**
16.5	11.8		**B. Most of the time**
29.3	28.7		**C. About half the time**
32.9	38.6		**D. Not very often**
11.4	12.6		**E. Almost never**
6203	6575		Weighted N
		88.	**I keep up to date on my assignments by doing my work every day.**
21.7	38.8		**A. Almost always**
35.3	37.3		**B. Most of the time**
24.6	15.2		**C. About half the time**
13.3	6.4		**D. Not very often**
5.2	2.3		**E. Almost never**
6210	6608		Weighted N
		89.	**I have trouble remembering what I read.**
8.1	9.1		**A. Almost always**
14.6	13.0		**B. Most of the time**
22.0	23.6		**C. About half the time**
36.4	37.7		**D. Not very often**
18.6	16.5		**E. Almost never**
6196	6572		Weighted N
		90.	**I read material over and over again without really understanding what I have read.**
6.0	7.0		**A. Almost always**
10.1	9.7		**B. Most of the time**
17.5	17.8		**C. About half the time**
38.8	40.9		**D. Not very often**
27.6	24.6		**E. Almost never**
6182	6544		Weighted N

Schooling

		91.	**Which *one* of the following high school programs or curriculums is *most like* the one that you are taking? *If you have not yet been assigned to a program, which do you expect you will take?***
24.8	18.9		**A. General**—*a program that does not necessarily prepare you either for college or for work, but in which you take subjects required for graduation and many subjects that you like.*
48.2	37.8		**B. College Preparatory**—*a program that gives you the training and credits needed to work toward a regular Bachelor's degree in college.*
7.1	37.1		**C. Commercial or Business**—*a program that prepares you to work in an office; for example, as a secretary or bookkeeper.*
12.4	3.3		**D. Vocational**—*a program that prepares you to work in a shop or factory, or to enter a trade school, or become an apprentice after high school.*
4.1	.3		**E. Agriculture**
3.3	2.6		**F. A program very different from the above.**
6249	6624		Weighted N
		92.	**How many times have you changed schools since starting the 1st grade (not counting promotions from one school to another)?**
40.0	41.5		**A. Never**
23.2	24.0		**B. Once**
11.2	10.4		**C. Twice**
9.1	8.7		**D. Three times**
6.4	6.0		**E. Four times**
10.0	9.4		**F. Five or more times**
6284	6654		Weighted N
		93.	**When was the last time you changed schools (not counting promotions from one school to another)?**
40.3	41.8		**A. I have not done this.**
6.8	6.2		**B. About one year ago**
6.6	5.1		**C. About two years ago**
6.8	5.7		**D. About three years ago**
8.6	8.5		**E. About four years ago**
31.0	32.9		**F. About five or more years ago**
6275	6656		Weighted N

M	F		
		94.	**How old were you when you started the first grade?**
4.3	4.1	**A.**	**Four years old or younger**
34.4	34.9	**B.**	**Five years old**
52.2	53.8	**C.**	**Six years old**
7.6	6.3	**D.**	**Seven years old**
1.0	.8	**E.**	**Eight years old**
.4	.1	**F.**	**Nine years old or older**
6257	6636		Weighted N
		95.	**Since you started the first grade, how many full semesters of school have you missed?**
89.8	92.7	**A.**	**None**
5.6	4.3	**B.**	**One semester**
2.6	1.7	**C.**	**Two semesters**
.9	.4	**D.**	**Three semesters**
.5	.3	**E.**	**Four semesters**
.7	.6	**F.**	**Five semesters or more**
6271	6646		Weighted N
		96.	**How many days were you absent from school in the last school year (September 1958 to June 1959)?**
11.1	9.3	**A.**	**None**
39.8	38.1	**B.**	**One to four days**
26.1	27.8	**C.**	**Five to nine days**
12.3	12.9	**D.**	**Ten to fourteen days**
5.6	6.6	**E.**	**Fifteen to nineteen days**
5.6	5.3	**F.**	**Twenty or more days**
6241	6610		Weighted N
4.4	5.0		Median
		97.	**On the average, how many hours do you study each week? *Include study periods in school as well as studying done at home.***
3.2	.8	**A.**	**None**
23.4	16.6	**B.**	**About 1 - 4 hours per week**
31.8	31.1	**C.**	**About 5 - 9 hours per week**
23.2	26.5	**D.**	**About 10 - 14 hours per week**
11.9	16.5	**E.**	**About 15 - 19 hours per week**
6.5	8.4	**F.**	**About 20 or more hours per week**
6249	6622		Weighted N
8.2	9.8		Median

Items 98-104. **Starting with courses taken in the ninth grade, how many semesters (half-years) of each of the following kinds of courses have you taken? *Include those which you are taking now.***

		98.	**Science courses (biology, chemistry, general science, physics, etc.)**
2.9	3.3	**A.**	**None**
27.4	41.4	**B.**	**1**
27.8	32.3	**C.**	**2**
4.5	2.8	**D.**	**3**
16.8	13.3	**E.**	**4**
20.5	6.9	**F.**	**5 or more**
6262	6642		Weighted N
		99.	**Foreign languages (French, German, Spanish, Latin, etc.)**
47.6	40.8	**A.**	**None**
18.6	20.7	**B.**	**1**
20.5	21.4	**C.**	**2**
1.9	1.5	**D.**	**3**
5.1	5.7	**E.**	**4**
6.2	9.9	**F.**	**5 or more**
6249	6632		Weighted N
		100.	**Social studies (history, civics, government, economics, etc.)**
1.4	.7	**A.**	**None**
11.4	10.6	**B.**	**1**
30.8	32.1	**C.**	**2**
7.9	7.6	**D.**	**3**
22.1	22.9	**E.**	**4**
26.5	26.1	**F.**	**5 or more**
6245	6621		Weighted N
		101.	**English courses (grammar, composition, literature, etc.)**
1.4	.7	**A.**	**None**
4.5	2.8	**B.**	**1**
19.7	20.2	**C.**	**2**
4.3	3.1	**D.**	**3**
9.2	8.2	**E.**	**4**
60.9	65.1	**F.**	**5 or more**
6256	6643		Weighted N
		102.	**Business or commercial courses (typing, bookkeeping, shorthand, business law, commercial arithmetic, etc.)**
27.3	9.9	**A.**	**None**
44.3	30.4	**B.**	**1**
17.2	22.1	**C.**	**2**
3.2	4.8	**D.**	**3**
4.2	10.5	**E.**	**4**
3.8	22.2	**F.**	**5 or more**
6248	6630		Weighted N
		103.	**Vocational, shop, or agricultural courses**
33.8	81.7	**A.**	**None**
26.0	9.7	**B.**	**1**
18.9	4.3	**C.**	**2**
3.9	.5	**D.**	**3**
6.8	1.5	**E.**	**4**
10.6	2.3	**F.**	**5 or more**
6247	6615		Weighted N
		104.	**Mathematics courses (algebra, geometry, trigonometry, etc.) Do *not* count commercial arithmetic or shop mathematics.**
7.8	13.8	**A.**	**None**
19.1	30.3	**B.**	**1**
22.7	29.1	**C.**	**2**
5.5	3.0	**D.**	**3**
14.9	14.0	**E.**	**4**
29.9	9.7	**F.**	**5 or more**
6241	6616		Weighted N
		105.	**Has calculus been included in any mathematics course you have ever taken, or are now taking?**
81.4	88.3	**A.**	**No**
8.4	5.9	**B.**	**Yes, for a period of about 2 weeks.**
4.5	2.4	**C.**	**Yes, for a period of about 1 month.**
2.1	1.0	**D.**	**Yes, for a period of about 2 months.**
1.3	.8	**E.**	**Yes, for a period of about 3 months.**
2.4	1.6	**F.**	**Yes, for an entire semester**
6224	6541		Weighted N

Items 106-113. **The following questions ask you to report your grades in courses you have taken in the ninth grade or later. *Please consider only semester grades. If you have not taken any courses in the topic, skip the item.* In these questions choose the one answer that best describes your grades.**

[If your school does not use letter grades, please use the following equivalents:

For a grade of A: Excellent; 90-100
For a grade of B: Good; 80-89
For a grade of C: Average; 70-79
For a grade of D: Fair; 60-69
For a grade below D: Failing; 59 or lower]

		106.	**My grades in *mathematics* have been:**
6.5	7.9	**A.**	**All A's or equivalent**
10.6	11.5	**B.**	**Mostly A's or equivalent**
22.7	25.6	**C.**	**Mostly A's and B's or equivalent**
34.4	34.8	**D.**	**Mostly B's and C's or equivalent**
22.9	18.0	**E.**	**Mostly C's and D's or equivalent**
2.8	2.2	**F.**	**Mostly D's or below or equivalent**
6207	6509		Weighted N

M	F	107. My grades in *science courses* have been:
5.5	7.4	A. All A's or equivalent
11.7	12.3	B. Mostly A's or equivalent
25.6	28.7	C. Mostly A's and B's or equivalent
36.8	35.8	D. Mostly B's and C's or equivalent
18.3	14.4	E. Mostly C's and D's or equivalent
2.1	1.4	F. Mostly D's or below or equivalent
6161	6469	Weighted N

		108. My grades in *foreign languages* have been:
8.0	12.9	A. All A's or equivalent
9.9	14.0	B. Mostly A's or equivalent
20.9	27.5	C. Mostly A's and B's or equivalent
28.8	27.6	D. Mostly B's and C's or equivalent
22.0	13.8	E. Mostly C's and D's or equivalent
10.5	4.3	F. Mostly D's or below or equivalent
4278	4492	Weighted N

		109. My grades in *history* and *social studies courses* have been:
7.1	9.9	A. All A's or equivalent
13.1	14.7	B. Mostly A's or equivalent
27.6	30.3	C. Mostly A's and B's or equivalent
33.5	30.4	D. Mostly B's and C's or equivalent
16.4	13.1	E. Mostly C's and D's or equivalent
2.3	1.6	F. Mostly D's or below or equivalent
6173	6566	Weighted N

		110. My grades in *English courses* have been:
4.3	10.3	A. All A's or equivalent
10.6	17.7	B. Mostly A's or equivalent
25.0	32.9	C. Mostly A's and B's or equivalent
36.4	30.2	D. Mostly B's and C's or equivalent
20.8	8.3	E. Mostly C's and D's or equivalent
2.9	.6	F. Mostly D's or below or equivalent
6156	6535	Weighted N

		111. My grades in *vocational courses* have been:
11.4	12.8	A. All A's or equivalent
17.4	19.8	B. Mostly A's or equivalent
30.6	32.0	C. Mostly A's and B's or equivalent
29.8	27.2	D. Mostly B's and C's or equivalent
9.2	7.0	E. Mostly C's and D's or equivalent
1.6	1.3	F. Mostly D's or below or equivalent
4547	3371	Weighted N

		112. My grades in *business* or *commercial courses* have been:
8.0	13.7	A. All A's or equivalent
13.2	17.4	B. Mostly A's or equivalent
26.8	31.9	C. Mostly A's and B's or equivalent
34.4	28.8	D. Mostly B's and C's or equivalent
14.7	7.9	E. Mostly C's and D's or equivalent
2.8	.9	F. Mostly D's or below or equivalent
4450	5705	Weighted N

		113. My grades in *all courses starting with the ninth grade* have been:
3.4	4.2	A. All A's or equivalent
9.5	12.4	B. Mostly A's or equivalent
26.1	34.4	C. Mostly A's and B's or equivalent
42.3	39.1	D. Mostly B's and C's or equivalent
17.3	9.2	E. Mostly C's and D's or equivalent
1.4	.6	F. Mostly D's or below or equivalent
6082	6464	Weighted N

Guidance

Items 114-117. How many times have you discussed each of the following with your teachers or school principal in the past school year?

		114. Colleges or college plans
29.7	33.7	A. None
16.2	17.6	B. One
17.5	16.7	C. Two
12.7	12.0	D. Three
6.5	6.3	E. Four
17.3	13.8	F. Five or more
6238	6626	Weighted N

M	F	115. Jobs or occupations after high school
36.9	34.5	A. None
19.8	21.3	B. One
18.5	18.5	C. Two
10.4	10.7	D. Three
4.9	5.4	E. Four
9.5	9.5	F. Five or more
6218	6604	Weighted N

		116. Your high school work
24.0	28.7	A. None
17.5	20.0	B. One
20.2	18.4	C. Two
13.1	11.8	D. Three
7.4	6.6	E. Four
17.8	14.6	F. Five or more
6215	6593	Weighted N

		117. Personal problems
66.1	69.5	A. None
13.5	13.4	B. One
8.5	7.1	C. Two
4.7	3.5	D. Three
2.4	2.0	E. Four
4.8	4.6	F. Five or more
6229	6613	Weighted N

Items 118-121. How many times have you discussed each of the following with your school counselor in the past school year?

		118. Colleges or college plans
27.1	31.1	A. We have no school counselor.
23.8	25.3	B. None
15.6	14.8	C. One
11.8	10.4	D. Two
7.9	7.3	E. Three
13.8	11.1	F. Four or more
6213	6590	Weighted N

		119. Jobs or occupations after high school
32.1	33.9	A. We have no school counselor.
30.3	29.4	B. None
17.0	16.9	C. One
10.0	9.2	D. Two
5.1	5.1	E. Three
5.5	5.5	F. Four or more
6173	6535	Weighted N

		120. Your high school work
29.4	34.1	A. We have no school counselor.
27.2	29.1	B. None
17.8	16.8	C. One
11.4	8.9	D. Two
5.9	5.1	E. Three
8.3	6.0	F. Four or more
6163	6525	Weighted N

		121. Personal problems
44.9	47.9	A. We have no school counselor.
38.3	38.9	B. None
7.6	6.1	C. One
3.6	2.5	D. Two
2.0	1.5	E. Three
3.5	3.0	F. Four or more
6184	6551	Weighted N

Items 122-129. How many times have you discussed your plans for after high school with each of the following people?

		122. Father
12.2	14.9	A. None
7.4	8.1	B. One
9.4	9.1	C. Two
8.7	7.7	D. Three
5.3	5.2	E. Four
56.9	55.0	F. Five or more
6197	6570	Weighted N

M	F		
		123. Mother	
6.1	3.2	A.	None
6.5	3.7	B.	One
9.[illegible]	5.7	C.	Two
9.6	6.8	D.	Three
6.9	6.0	E.	Four
61.1	74.5	F.	Five or more
6204	6606		Weighted N
		124. Brother or sister	
36.1	26.3	A.	None
12.3	10.8	B.	One
13.5	12.5	C.	Two
10.0	11.1	D.	Three
6.2	8.8	E.	Four
21.8	30.6	F.	Five or more
6105	6484		Weighted N
		125. School counselor	
39.7	42.5	A.	None
16.2	17.7	B.	One
15.1	14.1	C.	Two
10.2	9.4	D.	Three
5.5	5.6	E.	Four
13.3	10.6	F.	Five or more
6150	6519		Weighted N
		126. Teachers, principal, or assistant principal (not the school counselor)	
33.3	32.0	A.	None
18.5	20.9	B.	One
18.0	18.0	C.	Two
10.9	10.7	D.	Three
5.7	6.2	E.	Four
13.7	12.2	F.	Five or more
6173	6568		Weighted N
		127. Clergyman (minister, priest, rabbi, etc.)	
67.2	66.4	A.	None
13.0	14.3	B.	One
8.0	7.8	C.	Two
4.4	4.0	D.	Three
2.2	2.1	E.	Four
5.1	5.4	F.	Five or more
6154	6552		Weighted N
		128. Friends my own age	
6.0	2.1	A.	None
5.8	2.7	B.	One
11.5	6.7	C.	Two
11.8	8.0	D.	Three
7.3	7.0	E.	Four
57.5	73.4	F.	Five or more
6151	6555		Weighted N
		129. An adult not listed above	
28.2	23.4	A.	None
10.5	9.3	B.	One
15.3	14.1	C.	Two
11.5	11.3	D.	Three
6.8	7.8	E.	Four
27.8	34.0	F.	Five or more
6159	6535		Weighted N

Part II: FAMILY AND HOME

Directions: The questions in this part are about you and your family. Each question has *one answer* and *only one answer*. Answer each question sincerely and thoughtfully.

Many of the questions in this part are about your parents. If you are not living with both of your parents answer these questions for your step-mother or step-father, guardian(s), or foster parent(s). Following is a list of examples of adults with whom you may be living.

Father and mother
Father and step-mother
Mother and step-father
Foster parents or guardians
Mother and adult male relative (grandfather, uncle, older brother, etc.)
Father and an adult female relative (grandmother, aunt, older sister, etc.)
Grandparents
Brother or sister

In other words, answer for the two adults who are responsible for you. If you live with only one adult who is responsible for you, skip the questions for the other person.

If you live in an institution, mark **E** in question 130 below and skip to **Part III**.

Now, go ahead and answer the questions.

M	F		
		130. Who is the breadwinner in your family, that is, who provides the main source of support?	
85.8	85.0	A.	Father
2.6	2.6	B.	Male guardian or male relative
8.8	9.8	C.	Mother
.8	.7	D.	Female guardian or female relative
.2	.2	E.	I live in an institution.
1.8	1.7	F.	Someone not listed above
6246	6638		Weighted N
		131. Does your father work for pay on more than one job?	
83.0	84.0	A.	No
14.1	14.0	B.	Yes, two
1.6	1.2	C.	Yes, three
1.3	.9	D.	Yes, four or more
6046	6373		Weighted N
		132. Does your father direct or supervise the work of other people? *If he works on more than one job, mark your answer for his most important job. If he is now out of work, or if he is retired, mark your answer for his last job.*	
50.5	52.2	A.	No
23.3	22.8	B.	Yes, a few people (up to 4 or 5 people)
10.5	9.9	C.	Yes, many people (from 6 to 19 people)
4.9	4.2	D.	Yes, very many people (20 to 49 people)
6.1	4.8	E.	Yes, 50 people or more
4.8	6.1	F.	I don't know.
5989	6323		Weighted N
		133. As far as you know, which *one* of the following *best* describes your father's responsibility for money and property on his job? *If he works on more than one job, answer the question for the most important one. If he is temporarily unemployed, or if he is retired, answer the question for his last job.*	
17.5	20.2	A.	He is not in charge of any money or property.
13.2	10.9	B.	He is in charge of small amounts of money or property such as daily cash receipts, merchandise, or a few tools or machines.
22.8	19.2	C.	He is in charge of fairly large amounts of money, merchandise, or other property.
19.7	16.2	D.	He is in charge of a great deal of money, merchandise, or property.
26.8	33.5	E.	I don't know.
5954	6271		Weighted N

M	F		
		134. Has your mother worked for pay at any time in the last 3 years?	
13.7	12.2	A.	Yes, regular part-time work
11.1	10.7	B.	Yes, occasional part-time work
26.0	29.5	C.	Yes, regular full-time work
4.7	4.3	D.	Yes, occasional full-time work
42.4	42.0	E.	No
2.1	1.3	F.	I don't know.
6193	6575		Weighted N
		135. How long has your mother been working for pay?	
47.5	45.7	A.	She has not done this, or I don't know.
9.2	9.0	B.	1 year or less
11.1	10.5	C.	More than 1 but less than 3 years
8.6	8.4	D.	More than 3 but less than 5 years
6.1	6.7	E.	More than 5 but less than 7 years
17.5	19.7	F.	More than 7 years
6146	6535		Weighted N
		136. What was your father's highest rank while in military service?	
10.5	7.8	A.	Enlisted man (not a non-commissioned officer)
8.3	3.6	B.	Non-commissioned officer
8.9	7.7	C.	Officer
52.9	54.2	D.	He did not serve.
19.4	26.7	E.	I don't know.
6124	6447		Weighted N
		137. Were your parents born in the United States?	
2.5	2.5	A.	My father was born in the U. S. but my mother was not.
4.6	4.1	B.	My mother was born in the U. S. but my father was not.
87.2	88.8	C.	Both my parents were born in the U. S.
4.9	4.2	D.	Both my parents were born outside the U. S.
.8	.4	E.	I don't know whether my father or mother was born in the U. S.
6192	6561		Weighted N

Items 138-147. How active has your father been in any one or more of the following organizations?

		138. Church or religious group, teaching Sunday School, or charity work	
12.1	12.5	A.	Extremely active
10.3	8.9	B.	Very active
19.4	17.4	C.	Fairly active
11.4	10.4	D.	A member, but not very active
14.7	15.1	E.	A member, but rarely active
32.0	35.6	F.	Not a member of any of these organizations
5983	6308		Weighted N
		139. School organizations, such as the school board, Parent-Teacher's Association, etc.	
4.1	3.6	A.	Extremely active
5.5	4.3	B.	Very active
12.3	10.5	C.	Fairly active
10.1	9.0	D.	A member, but not very active
13.9	14.6	E.	A member, but rarely active
54.3	58.1	F.	Not a member of any of these organizations
5961	6291		Weighted N
		140. Political groups or organizations	
3.1	2.7	A.	Extremely active
4.4	3.7	B.	Very active
11.0	10.3	C.	Fairly active
8.0	5.5	D.	A member, but not very active
10.0	7.5	E.	A member, but rarely active
63.4	70.3	F.	Not a member of any of these organizations
5941	6247		Weighted N
		141. Labor union or trade union activities	
3.7	3.6	A.	Extremely active
6.1	5.9	B.	Very active
12.7	13.7	C.	Fairly active
9.6	8.2	D.	A member, but not very active
9.2	8.0	E.	A member, but rarely active
58.8	60.6	F.	Not a member of any of these organizations
5923	6203		Weighted N
		142. Business or professional association	
6.6	5.9	A.	Extremely active
7.5	7.2	B.	Very active
12.5	10.9	C.	Fairly active
6.3	4.0	D.	A member, but not very active
6.0	4.0	E.	A member, but rarely active
61.1	68.0	F.	Not a member of any of these organizations
5920	6207		Weighted N
		143. Hobby groups, such as dramatics, band, arts, crafts, etc.	
2.8	3.1	A.	Extremely active
3.5	3.1	B.	Very active
5.9	4.5	C.	Fairly active
3.2	1.4	D.	A member, but not very active
3.8	1.8	E.	A member, but rarely active
80.8	86.1	F.	Not a member of any of these organizations
5975	6306		Weighted N
		144. Sports club, team, or organization	
7.1	7.9	A.	Extremely active
7.3	6.8	B.	Very active
11.2	8.9	C.	Fairly active
4.5	2.5	D.	A member, but not very active
4.6	2.5	E.	A member, but rarely active
65.2	71.5	F.	Not a member of any of these organizations
5946	6271		Weighted N
		145. Social groups (Elks, Moose, etc.)	
5.6	5.5	A.	Extremely active
5.7	5.6	B.	Very active
10.9	9.5	C.	Fairly active
6.4	5.2	D.	A member, but not very active
5.3	4.1	E.	A member, but rarely active
66.0	70.2	F.	Not a member of any of these organizations
6007	6320		Weighted N
		146. Civic organizations (Rotary, Lions, Kiwanis, etc.)	
4.0	3.6	A.	Extremely active
4.0	3.5	B.	Very active
6.5	4.6	C.	Fairly active
3.9	2.3	D.	A member, but not very active
3.6	2.3	E.	A member, but rarely active
77.9	83.8	F.	Not a member of any of these organizations
5991	6299		Weighted N
		147. Active military reserve unit or veterans' organization (American Legion, Veterans of Foreign Wars, etc.)	
2.9	2.8	A.	Extremely active
2.8	2.2	B.	Very active
4.7	4.1	C.	Fairly active
3.6	2.8	D.	A member, but not very active
3.8	3.2	E.	A member, but rarely active
82.3	85.0	F.	Not a member of any of these organizations
5981	6285		Weighted N

Items 148-157. How active has your mother been in any one or more of the following organizations? answers as before.

		148. Church or religious group, teaching Sunday School, or charity work	
17.1	18.1	A.	Extremely active
15.1	14.1	B.	Very active
21.8	21.6	C.	Fairly active
9.7	9.0	D.	A member, but not very active
9.6	9.5	E.	A member, but rarely active
26.6	27.7	F.	Not a member of any of these organizations
6091	6478		Weighted N
		149. School organizations, such as the school board, Parent-Teacher's Association, etc.	
7.2	6.8	A.	Extremely active
10.0	9.8	B.	Very active
19.9	19.1	C.	Fairly active
12.5	12.1	D.	A member, but not very active
12.1	12.2	E.	A member, but rarely active
38.2	40.0	F.	Not a member of any of these organizations
6091	6475		Weighted N

M	F	150. Political groups or organizations
1.7	1.4	A. Extremely active
2.4	2.0	B. Very active
6.6	5.2	C. Fairly active
5.4	3.4	D. A member, but not very active
6.4	4.3	E. A member, but rarely active
77.5	83.8	F. Not a member of any of these organizations
6098	6481	Weighted N

M	F	151. Labor union or trade union activities
1.0	.8	A. Extremely active
1.5	1.0	B. Very active
3.7	2.7	C. Fairly active
3.3	2.2	D. A member, but not very active
3.6	2.8	E. A member, but rarely active
87.0	90.5	F. Not a member of any of these organizations
6088	6461	Weighted N

M	F	152. Business or professional association
2.2	2.2	A. Extremely active
2.7	2.8	B. Very active
5.5	4.6	C. Fairly active
3.2	1.9	D. A member, but not very active
3.4	1.8	E. A member, but rarely active
82.9	86.7	F. Not a member of any of these organizations
6084	6447	Weighted N

M	F	153. Hobby groups, such as dramatics, band, arts, crafts, etc.
3.0	3.5	A. Extremely active
4.2	4.2	B. Very active
7.9	6.9	C. Fairly active
3.9	1.9	D. A member, but not very active
3.5	1.8	E. A member, but rarely active
77.5	81.6	F. Not a member of any of these organizations
6130	6517	Weighted N

M	F	154. Sports club, team, or organization
3.0	2.9	A. Extremely active
3.5	3.2	B. Very active
5.6	4.1	C. Fairly active
3.1	1.3	D. A member, but not very active
2.8	1.3	E. A member, but rarely active
82.1	87.1	F. Not a member of any of these organizations
6140	6522	Weighted N

M	F	155. Social groups (Eastern Star, D.A.R., etc.)
4.4	4.6	A. Extremely active
5.3	5.2	B. Very active
8.4	6.8	C. Fairly active
4.2	2.9	D. A member, but not very active
3.3	2.4	E. A member, but rarely active
74.3	78.1	F. Not a member of any of these organizations
6124	6517	Weighted N

M	F	156. Civic organizations (League of Women Voters, etc.)
2.3	1.9	A. Extremely active
2.6	1.9	B. Very active
4.9	3.2	C. Fairly active
2.8	1.5	D. A member, but not very active
2.8	1.5	E. A member, but rarely active
84.5	90.0	F. Not a member of any of these organizations
6133	6524	Weighted N

M	F	157. Auxiliary of veterans organization (American Legion, Veterans of Foreign Wars, etc.)
1.6	1.3	A. Extremely active
1.7	1.1	B. Very active
2.9	2.1	C. Fairly active
2.2	1.3	D. A member, but not very active
2.1	1.4	E. A member, but rarely active
89.5	92.8	F. Not a member of any of these organizations
6149	6531	Weighted N

Items 158-166. How well does either of your parents speak each of the following languages?

M	F	158. French
2.2	2.3	A. Very fluently
1.4	1.5	B. Fluently
4.6	5.2	C. Fairly well
4.4	4.6	D. Not very well
4.8	4.9	E. Rather poorly
82.6	81.6	F. Doesn't speak this language
6192	6592	Weighted N

M	F	159. German
2.9	3.1	A. Very fluently
2.2	2.3	B. Fluently
5.4	5.6	C. Fairly well
4.8	4.6	D. Not very well
5.6	5.8	E. Rather poorly
79.2	78.7	F. Doesn't speak this language
6201	6591	Weighted N

M	F	160. Italian
3.5	3.5	A. Very fluently
1.5	1.3	B. Fluently
2.2	1.8	C. Fairly well
1.6	1.3	D. Not very well
1.9	1.6	E. Rather poorly
89.4	90.4	F. Doesn't speak this language
6203	6592	Weighted N

M	F	161. Spanish or Portuguese
2.3	2.3	A. Very fluently
1.4	1.2	B. Fluently
2.9	3.2	C. Fairly well
3.0	2.8	D. Not very well
3.4	3.1	E. Rather poorly
87.1	87.4	F. Doesn't speak this language
6191	6581	Weighted N

M	F	162. Russian or Slavic
2.2	2.1	A. Very fluently
1.4	1.1	B. Fluently
1.5	1.4	C. Fairly well
1.1	.9	D. Not very well
1.3	.9	E. Rather poorly
92.5	93.5	F. Doesn't speak this language
6195	6579	Weighted N

M	F	163. Hebrew or Yiddish
2.6	2.4	A. Very fluently
1.4	1.0	B. Fluently
1.5	1.1	C. Fairly well
.8	.6	D. Not very well
.7	.6	E. Rather poorly
92.9	94.4	F. Doesn't speak this language
6194	6589	Weighted N

M	F	164. Scandinavian language (Danish, Swedish, or Norwegian)
1.4	1.3	A. Very fluently
.9	.7	B. Fluently
1.9	1.4	C. Fairly well
1.4	1.1	D. Not very well
1.7	1.4	E. Rather poorly
92.8	94.1	F. Doesn't speak this language
6199	6591	Weighted N

M	F	165. Oriental language
1.7	1.4	A. Very fluently
.8	.5	B. Fluently
1.1	.7	C. Fairly well
.8	.5	D. Not very well
.8	.6	E. Rather poorly
94.8	96.4	F. Doesn't speak this language
6044	6435	Weighted N

M	F	166. Some other foreign language
4.4	4.9	A. Very fluently
2.4	2.1	B. Fluently
3.4	3.5	C. Fairly well
2.5	1.9	D. Not very well
2.4	2.1	E. Rather poorly
84.9	85.4	F. Doesn't speak this language
6217	6593	Weighted N

		167. How long have you lived in this community?
3.7	3.7	A. One year or less
5.[illegible]	5.6	B. More than 1 year, but not more than 3 years
7.5	7.6	C. More than 3 years, but not more than 5 years
13.0	13.9	D. More than 5 years, but not more than 10 years
22.8	21.2	E. More than 10 years, but not all my life
47.9	48.0	F. All my life
6262	6648	Weighted N

		168. Which one of the following best describes the community in which you lived just before moving to this community?
42.1	44.8	A. I have lived in this community all my life.
11.1	11.0	B. In suburban areas, towns, or villages around a city
14.3	12.7	C. Inside a large city with 100,000 or more people
7.7	7.6	D. Inside a medium sized city with 25,000 to 100,000 people
12.1	12.0	E. In a small city or town with 2,500 to 25,000 people (not the suburban area of a city)
12.7	11.9	F. A farm or village with less than 2,500 people (not the suburban area of a city)
6164	6534	Weighted N

		169. How many different houses or apartments (not counting vacations away from your regular home) has your family lived in, in the last three years?
70.1	7[illegible]	A. One
16.3	16.1	B. Two
6.4	5.8	C. Three
3.1	2.2	D. Four
1.6	1.3	E. Five
2.4	1.9	F. Six or more
6006	6319	Weighted N

		170. Which one of the following best describes the building in which you live?
75.7	77.8	A. A one-family house
10.1	9.4	B. A two-family house
2.8	2.4	C. A small apartment house (3 or 4 families)
3.7	2.9	D. A large apartment house (5 families or more)
1.0	.6	E. A rooming house, hotel, or trailer
6.6	7.0	F. Something different from the above
6258	6651	Weighted N

		171. If your family is renting your home or the place where you live, about how much are they paying each month?
10.0	10.4	A. Less than $60
6.1	6.4	B. $60 to $79
3.6	3.5	C. $80 to $99
2.3	1.9	D. $100 to $119
2.1	2.0	E. $120 or more
76.0	75.8	F. We have bought (or are buying) our home.
5977	6334	Weighted N
$ 65	$ 65	Median c/

		172. If your family has bought (or is buying) your home, what is its present value?
8.1	7.2	A. Under $6,000
18.9	17.9	B. $6000 to $10,000
21.1	19.5	C. $10,000 to $15,000
17.5	19.4	D. $15,000 to $22,000
15.8	15.4	E. More than $22,000
18.6	20.6	F. We are renting our home.
$ 5822	$ 5938	Weighted N
$13250	$13750	Median c/

M	F	173. Please make the best estimate you can of your family's total income for *last year* (1959). *Include money earned by both parents or anyone else in the household who worked.*
5.2	4.9	A. Less than $3,000
23.0	18.9	B. $3,000 to $5,999
25.3	17.9	C. $6,000 to $8,999
12.1	8.1	D. $9,000 to $11,999
11.4	7.8	E. $12,000 or more
23.0	42.4	F. I can't estimate this.
6092	6484	Weighted N
$7200	$6800	Median c/

		174. Which of the following best describes your family's finances?
2.6	2.0	A. Barely able to make a living
15.1	15.2	B. Have the necessities
66.9	70.3	C. Comfortable
12.6	10.5	D. Well-to-do
2.0	1.5	E. Wealthy
.8	.5	F. Extremely wealthy
6178	6602	Weighted N

		175. From which *one* of the following sources does your family get most of its income?
3.3	2.7	A. Professional fees
17.0	14.6	B. Business profits (including profits from a farm)
37.5	3[illegible].7	C. Fixed salary (paid on a weekly, monthly, or yearly basis)
30.4	31.9	D. Wages (paid on an hourly or daily basis, and depending on the number of hours worked)
3.0	2.3	E. Commissions or royalties
8.8	8.9	F. Some other source, not mentioned above
6156	6509	Weighted N

		176. How many books are in your home?
5.7	6.1	A. None, or very few (0-10)
18.3	18.8	B. A few books (11-25)
38.0	39.1	C. One bookcase full (26-100)
21.8	20.6	D. Two bookcases full (101-250)
12.2	12.3	E. Three or four bookcases full (251-500)
4.0	3.2	F. A room full—a library (501 or more)
6216	6622	Weighted N
76	72	Median

Items 177-186. How many of each of the following kinds of magazines do you get regularly at home (by subscription or purchased regularly)?

		177. Ladies' magazines, homemaking magazines, or fashion magazines (such as Ladies' Home Journal, McCall's, Redbook, Cosmopolitan, Better Homes and Gardens, Good Housekeeping, House Beautiful, etc.)
30.8	25.7	A. None
25.1	24.4	B. One
22.0	19.2	C. Two
11.7	13.6	D. Three
4.4	7.1	E. Four
6.0	9.9	F. Five or more
6219	6633	Weighted N

		178. Men's magazines or sports magazines (such as Sports Afield, Sports Illustrated, Field and Stream, Esquire, Argosy, True, etc.)
38.3	52.1	A. None
28.5	23.5	B. One
17.5	12.7	C. Two
7.5	5.2	D. Three
2.8	2.0	E. Four
5.4	4.4	F. Five or more
6218	6630	Weighted N

		179. Movie magazines, love stories, detective magazines (Such as Modern Screen, Photoplay, Silver Screen, True Story, Sweetheart Stories, True Romance, Real Detective, Official Detective Stories, True Detective, etc.)
68.6	59.8	A. None
14.1	17.2	B. One
7.7	8.9	C. Two
3.7	4.5	D. Three
1.6	2.4	E. Four
4.3	7.3	F. Five or more
6217	6631	Weighted N

c/Based on responses to options A-E.

M	F	
43.8	63.7	**180. Mechanics, electronics, aviation, or automobile magazines (such as Popular Mechanics, Mechanix Illustrated, Science and Mechanics, Hot Rod, Motor Trend, Motor Life, etc.)**
25.3	19.6	A. None
13.8	8.1	B. One
6.8	3.3	C. Two
3.4	1.4	D. Three
6.8	3.8	E. Four
6212	6616	F. Five or more
		Weighted N
64.2	68.0	**181. Farm magazines (such as Farm Journal, Progressive Farmer, Farm and Ranch, Prairie Farmer, Successful Farmer, etc.)**
14.2	13.8	A. None
9.2	7.8	B. One
5.3	4.2	C. Two
2.5	2.2	D. Three
4.5	4.0	E. Four
6202	6610	F. Five or more
		Weighted N
40.2	39.2	**182. News or pictorial magazines (such as Life, Look, Newsweek, Time, U.S. News and World Report, etc.)**
26.5	27.2	A. None
17.4	17.2	B. One
7.8	7.4	C. Two
3.0	3.2	D. Three
5.1	5.8	E. Four
6197	6605	F. Five or more
		Weighted N
74.9	81.3	**183. Business magazines (such as Business Week, Nation's Business, etc.)**
12.9	10.7	A. None
5.8	3.6	B. One
2.4	1.5	C. Two
1.1	.7	D. Three
3.0	2.3	E. Four
6198	6606	F. Five or more
		Weighted N
85.4	89.6	**184. Opinion magazines (such as The Nation, The New Republic, The Reporter, The Progressive, etc.).**
7.0	5.8	A. None
3.0	1.6	B. One
1.4	.7	C. Two
.7	.3	D. Three
2.5	2.0	E. Four
6199	6604	F. Five or more
		Weighted N
68.4	72.5	**185. Professional or trade journals or magazines**
16.1	15.0	A. None
8.0	6.5	B. One
3.0	2.2	C. Two
1.2	.9	D. Three
3.4	2.8	E. Four
6195	6597	F. Five or more
		Weighted N
84.6	89.7	**186. Science fiction magazines (such as Galaxy, Science Fiction, etc.)**
7.4	5.6	A. None
3.0	1.6	B. One
1.5	.7	C. Two
.7	.4	D. Three
2.8	2.0	E. Four
6212	6618	F. Five or more
		Weighted N

Items 187-189. **How many of the following do you get regularly at home (by subscription or purchased regularly)?**

M	F	
77.2	80.5	**187. Atlantic Monthly, Harpers, National Geographic, Saturday Review, Fortune, New Yorker**
14.6	13.3	A. None
4.6	3.6	B. One
1.7	1.2	C. Two
.7	.5	D. Three
1.2	.9	E. Four
6240	6650	F. Five or more
		Weighted N
31.2	30.1	**188. Reader's Digest, Coronet, Saturday Evening Post**
40.4	41.3	A. None
20.4	19.7	B. One
8.0	8.9	C. Two
6245	6650	D. Three
		Weighted N
67.2	69.6	**189. Parents' Magazine, Boys' Life, American Girl, Scouting**
23.2	21.9	A. None
6.4	5.7	B. One
1.8	1.5	C. Two
1.4	1.3	D. Three
6231	6642	E. Four
		Weighted N

Items 190-195. **How many of the following articles are in your home?**

2.5	1.7	**190. Automatic washer, automatic clothes dryer, electric dishwasher, electric or gas refrigerator, vacuum cleaner, home food freezer (separate from refrigerator)**
7.5	8.2	A. None
17.3	21.0	B. One
27.1	29.3	C. Two
22.0	22.2	D. Three
23.7	17.6	E. Four
6231	6647	F. Five or six
		Weighted N
1.0	.5	**191. Telephone, television set, radio, phonograph**
4.5	3.0	A. None
6.7	5.6	B. One
16.4	15.5	C. Two
71.4	75.4	D. Three
6217	6632	E. Four
		Weighted N
8.7	11.2	**192. Sterling silverware, paintings, tapestries, wall-to-wall carpeting, ceiling-to-floor drapes**
17.2	19.5	A. None
22.9	24.3	B. One
22.9	21.5	C. Two
16.0	15.1	D. Three
12.3	8.4	E. Four
6208	6632	F. Five
		Weighted N
22.2	22.2	**193. Musical instruments, hi-fi or stereophonic set, classical records, art equipment, photo developing equipment**
24.8	24.8	A. None
23.7	24.0	B. One
16.7	17.6	C. Two
7.8	8.0	D. Three
4.9	3.4	E. Four
6192	6619	F. Five
		Weighted N
7.9	15.0	**194. Tennis racket, golf clubs, hunting equipment, skis, fishing equipment**
15.3	23.5	A. None
30.3	29.5	B. One
22.6	18.4	C. Two
12.4	8.8	D. Three
11.4	4.9	E. Four
6232	6649	F. Five
		Weighted N

M	F		
		195.	**A room of my own, my own study desk, a typewriter**
12.7	10.1		**A.** None
25.6	25.9		**B.** One
30.4	31.2		**C.** Two
31.3	32.7		**D.** Three
6224	6642		Weighted N
		196.	**How many hand tools (saw, pliers, wire cutters, hammer, wrench, drill, screwdriver, crow bar, etc.) are in your home?**
5.3	8.6		**A.** Five or less
9.8	14.7		**B.** Six to ten
11.5	14.3		**C.** Eleven to fifteen
12.9	14.4		**D.** Sixteen to twenty
9.1	10.3		**E.** Twenty-one to twenty-five
51.4	37.7		**F.** Twenty-six or more
6225	6606		Weighted N
		197.	**How many electrically operated power tools (saw, drill, sander, etc.) are in your home?**
27.3	33.2		**A.** None
16.1	17.1		**B.** One
16.8	16.5		**C.** Two
13.1	12.6		**D.** Three
8.7	8.1		**E.** Four
18.0	12.5		**F.** Five or more
6221	6602		Weighted N
		198.	**How many cars or station wagons does your family own?** ***Do not include trucks. Include your own as well as any owned by your parents, or brothers or sisters living in your home.***
7.2	8.8		**A.** None
37.7	51.9		**B.** One
37.2	30.6		**C.** Two
12.2	6.6		**D.** Three
3.6	1.4		**E.** Four
2.0	.7		**F.** Five or more
6232	6642		Weighted N
		199.	**What year model is your family's newest car or station wagon?** ***Do not include trucks.***
11.9	12.3		**A.** 1952 or older
13.9	14.6		**B.** 1953 or 1954
22.0	22.4		**C.** 1955 or 1956
22.4	21.4		**D.** 1957 or 1958
22.5	20.9		**E.** 1959 or 1960
7.3	8.3		**F.** My family does not own a car or station wagon.
6196	6583		Weighted N
1956	1956		Median
		200.	**Are you a twin, triplet, or quadruplet?**
95.7	97.3		**A.** No.
2.2	1.9		**B.** Yes, I have a twin in this school.
1.1	.5		**C.** Yes, I have a twin who is living, but not in this school.
.7	.2		**D.** Yes, I am one of triplets or quadruplets, and one or more of the others are in this school.
.4	.1		**E.** Yes, I am one of triplets or quadruplets, but none of the others is in this school.
6243	6646		Weighted N
		201.	**How many of your brothers or sisters dropped out of high school without graduating?**
11.3	11.1		**A.** I have no brothers or sisters.
72.3	71.0		**B.** None
9.6	9.9		**C.** One
3.3	3.8		**D.** Two
1.7	1.9		**E.** Three
1.9	2.4		**F.** Four or more
6242	6652		Weighted N
		202.	**How many of your brothers or sisters have ever attended a vocational school?**
13.9	14.6		**A.** I have no brothers or sisters.
70.9	73.1		**B.** None
10.1	9.0		**C.** One
2.8	2.0		**D.** Two
1.1	.7		**E.** Three
1.2	.7		**F.** Four or more
6230	6636		Weighted N

M	F		
		203.	**How many of your brothers or sisters have ever attended a business or commercial school?**
14.7	15.5		**A.** I have no brothers or sisters.
72.8	75.2		**B.** None
9.8	7.8		**C.** One
1.7	1.0		**D.** Two
.6	.3		**E.** Three
.4	.3		**F.** Four or more
6226	6632		Weighted N
		204.	**How many of your brothers or sisters have ever attended a junior college?**
15.5	16.2		**A.** I have no brothers or sisters.
75.4	77.4		**B.** None
6.8	5.2		**C.** One
1.5	.7		**D.** Two
.4	.2		**E.** Three
.3	.2		**F.** Four or more
6204	6612		Weighted N
		205.	**How many of your brothers or sisters have ever attended a four-year college?**
15.1	15.6		**A.** I have no brothers or sisters.
65.0	66.2		**B.** None
14.7	14.3		**C.** One
3.5	2.7		**D.** Two
1.0	.7		**E.** Three
.7	.5		**F.** Four or more
6159	6558		Weighted N

Part III

		206.	**Which *one* of the following comes *closest* to describing the work of your father (or the male head of your household)?** ***Mark only one answer. If he works on more than one job, mark the one on which he spends most of his time. If he is now out of work, or if he's retired, mark the one that he did last.***
9.5	8.2		**A.** Farm or ranch owner and/or manager
.7	.5		**B.** Farm or ranch foreman
1.6	1.9		**C.** Farm or ranch worker
15.7	17.3		**D.** Workman or laborer—such as factory or mine worker, fisherman, filling station attendant, longshoreman, etc.
.2	.2		**E.** Private household worker—such as a servant, butler, etc.
1.7	1.6		**F.** Protective worker—such as a policeman, detective, sheriff, fireman
1.2	1.1		**G.** Service worker—such as barber, beautician, waiter, etc.
7.9	7.1		**H.** Semi-skilled worker—such as factory machine operator, bus or cab driver, meat cutter, etc.
19.7	20.3		**I.** Skilled worker or foreman—such as a baker, carpenter, electrician, enlisted man in the armed forces, mechanic, plumber, plasterer, tailor, foreman in a factory or mine (but not on a farm), etc.
2.8	2.8		**J.** Clerical worker—such as bank teller, bookkeeper, sales clerk, office clerk, mail carrier, messenger, etc.
4.7	4.2		**K.** Salesman—such as real estate or insurance salesman, factory representative, etc.
7.6	7.1		**L.** Manager—such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
2.7	2.2		**M.** Official—such as manufacturer, officer in a large company, banker, government official or inspector, etc.
8.5	8.7		**N.** Proprietor or owner—such as owner of a small business, wholesaler, retailer, contractor, restaurant owner, etc.
6.1	6.1		**O.** Professional—such as actor, accountant, artist, clergyman, dentist, engineer, lawyer, librarian, scientist, etc.
3.0	2.9		**P.** Technical—such as draftsman, surveyor, medical or dental technician, etc.
6.3	7.7		**Q.** I don't know.
6046	6392		Weighted N

207. If your father (or the male head of your household) has a professional or technical occupation (that is, if you marked O or P in the preceding question), answer this question. If your father does not have a professional or technical occupation, mark A on your answer sheet and go on to the next question.
Which *one* of the following professional or technical occupations comes *closest* to describing your father's occupation?

M	F		
83.8	85.4	A.	My father has an occupation other than professional or technical.
2.3	2.2	B.	Accountant or auditor
.1	.1	C.	Actor, musician, entertainer
.1	.1	D.	Architect
.4	.4	E.	Armed forces officer
.2	.2	F.	Artist, designer, sculptor
.0	.0	G.	Biological scientist
.3	.4	H.	Chemist
.3	.3	I.	College administrator
.6	.6	J.	Clergyman
.6	.5	K.	Dentist
.4	.3	L.	Draftsman
.1	.1	M.	Economist
.1	.1	N.	Editor or reporter
.2	.1	O.	Elected or appointed officer—mayor, senator, judge, etc.
2.4	2.4	P.	Engineer—aeronautical, civil, chemical, electrical, mechanical, etc.
.8	.7	Q.	Lawyer (not elected or appointed official)
.2	.1	R.	Librarian
.3	.2	S.	Mathematician
.1	.1	T.	Nurse
.3	.3	U.	Optometrist, osteopath, chiropractor, pharmacist
.8	.8	V.	Physician or surgeon
.2	.1	W.	Physicist
.2	.2	X.	Psychologist
.1	.0	Y.	Sociologist
.3	.2	Z.	Social or welfare worker
.2	.2	AA.	Statistician
.2	.1	BB.	Surveyor
.4	.3	CC.	Teacher, elementary school
1.6	1.4	DD.	Teacher, high school
.4	.4	EE.	Technician, medical or dental
.1	.1	FF.	Veterinarian
.6	.5	GG.	A technical occupation not listed above
.2	.2	HH.	A scientific occupation not listed above
1.1	.9	II.	A professional occupation not listed above
5792	6197		Weighted N

208. Which *one* of the following comes *closest* to describing the work of your mother (or the female head of your household)? *Mark only one answer. If she does housework in addition to outside work, count only the outside work. If she works on more than one job, mark the most important one. If she usually works, but is now out of work, mark the one that she did last.*

M	F		
54.5	52.3	A.	Housewife only; she has not worked for pay in the last three years.
.4	.3	B.	Farm or ranch owner and/or manager
.4	.3	C.	Farm or ranch worker
3.6	3.4	D.	Worker or laborer—such as charwoman, laundry worker, etc.
2.9	3.3	E.	Private household worker—such as housekeeper, maid, laundress, etc.
.3	.2	F.	Protective worker—such as policewoman, etc.
4.2	4.7	G.	Service worker—such as beautician, waitress, etc.
5.3	6.4	H.	Semi-skilled worker—such as factory machine operator, cab driver, etc.
1.6	1.6	I.	Skilled worker or forewoman—such as baker, inspector, etc.
11.0	12.0	J.	Clerical worker—such as bookkeeper, secretary, typist, sales clerk, store clerk, etc.
1.4	1.3	K.	Sales—such as real estate, life insurance, etc.
1.6	1.6	L.	Manager—such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
.6	.5	M.	Official—such as manufacturer, officer in a large company, banker, government official or inspector, etc.
1.6	1.6	N.	Proprietor or owner—such as owner of a small business, wholesaler, retailer, restaurant owner, etc.
5.2	5.7	O.	Professional—such as actress, accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, etc.
.4	.4	P.	Technical—such as draftsman, medical or dental technician, etc.
5.1	4.9	Q.	I don't know.
6084	6507		Weighted N

209. If your mother (or the female head of your household) has a professional or technical occupation (that is, if you marked O or P in the preceding question), answer this question. If your mother does not have a professional or technical occupation, mark A on your answer sheet and go on to the next question.
Which *one* of the following professional or technical occupations comes *closest* to describing your mother's occupation?

M	F		
91.7	92.1	A.	My mother has an occupation other than professional or technical.
.1	.1	B.	Accountant or auditor
.1	.1	C.	Actress, musician, entertainer
.0	.0	D.	Architect
.1	.1	E.	Artist, designer, sculptress
.0	.0	F.	Biological scientist
.0	.0	G.	Chemist
.0	.0	H.	College administrator
.0	.0	I.	Clergywoman
.0	.0	J.	Dentist
.0	.0	K.	Draftsman
.0	.0	L.	Economist
.0	.1	M.	Editor or reporter
.0	.0	N.	Elected or appointed officer—mayor, senator, judge, etc.
.1	.0	O.	Engineer—aeronautical, civil, chemical, electrical, mechanical, etc.
.3	.2	P.	Lawyer (not elected or appointed official)
.3	.2	Q.	Librarian
.3	.0	R.	Mathematician
1.7	1.9	S.	Nurse
.1	.1	T.	Optometrist, osteopath, chiropractor, pharmacist
.1	.1	U.	Physician or surgeon
.2	.1	V.	Physicist
.2	.2	W.	Psychologist
.1	.1	X.	Sociologist
.1	.1	Y.	Social or welfare worker
.1	.1	Z.	Statistician
.2	.3	AA.	Surveyor
2.0	2.2	BB.	Teacher, elementary school
.6	.6	CC.	Teacher, high school
.2	.1	DD.	Technician, medical or dental
.1	.1	EE.	Veterinarian
.1	.1	FF.	A technical occupation not listed above
.4	.4	GG.	A scientific occupation not listed above
.5	.5	HH.	A professional occupation not listed above
5905	6354		Weighted N

210. In which *one* of the following programs do you expect to specialize in college? *Mark one of these even if you have not definitely made up your mind.*

26.0	36.1	A.	I do not expect to attend college.
1.8	1.4	B.	Biological sciences (botany, physiology, zoology)
4.7	1.0	C.	Physical sciences (chemistry, geology, physics, astronomy)
17.0	.1	D.	Engineering
3.0	1.4	E.	Mathematics
3.2	1.3	F.	Pre-medical
1.3	.4	G.	Pre-dental
3.1	.4	H.	Pre-law
10.5	10.8	I.	Business administration
4.0	12.7	J.	Education
1.0	2.9	K.	Sociology or psychology
.8	.4	L.	Political science or economics
.5	1.6	M.	Foreign languages
2.0	2.2	N.	Other liberal arts (philosophy, literature, history, etc.)
2.1	3.5	O.	Fine arts (music, art, ballet, etc.)
2.8	.1	P.	Agriculture
.2	8.6	Q.	Nursing
.1	2.3	R.	Home economics
.9	.1	S.	Pre-theology
.6	.7	T.	Journalism
7.7	6.7	U.	A program not listed above.
6.6	5.3	V.	I have no plans regarding college programs.
6091	6543		Weighted N

211. In the following list of occupations, mark the one occupation you *expect* to make your career after you have completed your education. *If your choice is not on the list, mark the one that is closest to it. Mark one of these even if you have not definitely made up your mind.*

M	F		
4.8	2.8	A.	Accountant
1.4	.6	B.	Biological scientist (biologist, botanist, physiologist, zoologist, etc.)
.6	.3	C.	College professor
1.8	.2	D.	Dentist
17.7	.2	E.	Engineer (aeronautical, civil, chemical, mechanical, etc.)
.6	9.5	F.	Elementary school teacher
5.8	7.3	G.	High school teacher
3.4	.4	H.	Lawyer
1.3	.5	I.	Mathematician
1.3	.4	J.	Pharmacist
1.6	.3	K.	Clergyman (minister, priest, rabbi, etc.)
3.0	.6	L.	Physical scientist (chemist, geologist, physicist, astronomer, etc.)
2.5	.6	M.	Physician
.5	.2	N.	Political scientist or economist
.8	2.2	O.	Social worker
.7	1.4	P.	Sociologist or psychologist
4.5	.4	Q.	Armed forces officer
1.9	2.3	R.	Artist or entertainer
7.4	.5	S.	Businessman
1.2	.0	T.	Craftsman
1.0	.0	U.	Engineering or scientific aide
2.2	.1	V.	Forester
.5	2.4	W.	Medical or dental technician
.2	10.1	X.	Nurse
1.8	.5	Y.	Pilot, airplane
1.6	.1	Z.	Policeman or fireman
.5	30.3	AA.	Secretary, office clerk or typist
.6	.7	BB.	Writer
.8	4.2	CC.	Barber or beautician
2.3	.1	DD.	Enlisted man in the armed forces
4.1	.2	EE.	Farmer
.1	10.4	FF.	Housewife
1.1	.6	GG.	Salesman or saleswoman
6.9	.1	HH.	Skilled worker (electrician, machinist, plumber, printer, etc.)
1.5	.0	II.	Structural worker (bricklayer, carpenter, painter, paperhanger, etc.)
12.2	9.3	JJ.	Some other occupation different from any above
6042	6534		Weighted N

212. Which *one* of the following occupations would you most *like* to enter? *If your choice is not on the list, mark the one that is closest to it. Mark one of these even if you have not definitely made up your mind.*

M	F		
4.4	3.1	A.	Accountant
1.6	1.1	B.	Biological scientist (biologist, botanist, physiologist, zoologist, etc.)
.7	.5	C.	College professor
2.0	.3	D.	Dentist
18.2	.3	E.	Engineer (aeronautical, civil, chemical, mechanical, etc.)
.6	8.8	F.	Elementary school teacher
4.6	5.8	G.	High school teacher
4.1	1.1	H.	Lawyer
1.4	.8	I.	Mathematician
1.4	.5	J.	Pharmacist
1.6	.4	K.	Clergyman (minister, priest, rabbi, etc.)
3.5	.9	L.	Physical scientist (chemist, geologist, physicist, astronomer, etc.)
3.0	1.3	M.	Physician
.5	.2	N.	Political scientist or economist
.6	3.7	O.	Social worker
.9	2.3	P.	Sociologist or psychologist
4.7	.7	Q.	Armed forces officer
2.6	4.4	R.	Artist or entertainer
5.7	.4	S.	Businessman
1.1	.0	T.	Craftsman
1.0	.0	U.	Engineering or scientific aide
3.2	.1	V.	Forester
.5	2.5	W.	Medical or dental technician
.2	11.2	X.	Nurse
4.3	.9	Y.	Pilot, airplane
1.1	.2	Z.	Policeman or fireman
.4	22.8	AA.	Secretary, office clerk or typist
.9	1.6	BB.	Writer
.7	4.5	CC.	Barber or beautician
1.3	.1	DD.	Enlisted man in the armed forces
3.9	.3	EE.	Farmer
1.1	9.6	FF.	Housewife
.8	.4	GG.	Salesman or saleswoman
6.2	.1	HH.	Skilled worker (electrician, machinist, plumber, printer, etc.)
1.5	.0	II.	Structural worker (bricklayer, carpenter, painter, paperhanger, etc.)
10.0	9.0	JJ.	Some other occupation different from any above
6049	6532		Weighted N

Part IV

Directions: The questions in this part are similar to those in some of the earlier parts. Answer each question sincerely and thoughtfully. Each question has *one answer* and *only one answer.*

Some of these questions are again about your parents or the heads of your household. If you live in an institution, skip to question 227.

213. For whom does your father work? *Mark only one answer. If he works on more than one job, mark the most important one. If he is now out of work, or if he is retired, mark the one that was his last employer.*

M	F		
37.3	36.8	A.	A large company or industry
13.1	13.0	B.	A small local company or industry
2.2	1.5	C.	A retail business
6.2	6.8	D.	An individual employer
24.2	23.5	E.	He is self-employed.
2.9	2.5	F.	The local or community government
2.2	2.1	G.	A school or college
1.5	1.3	H.	Military services
5.0	5.0	I.	The state or national government (except military services or schools)
5.4	7.5	J.	I don't know.
5882	6249		Weighted N

214. For whom does your mother work? *Mark only one answer. If she works on more than one job, mark the most important one. If she is now out of work, mark the one that was her last employer.*

M	F		
10.9	11.8	A.	A large company or industry
8.2	8.2	B.	A small local company or industry
3.8	3.3	C.	A retail business
7.5	9.0	D.	An individual employer
2.1	1.8	E.	The local or community government
5.1	4.8	F.	A school or college
2.3	2.0	G.	The state or national government (except schools)
5.8	4.9	H.	She is self-employed.
49.2	49.7	I.	Housewife only; she has not worked for pay in the last 3 years
5.1	4.6	J.	I don't know.
6012	6445		Weighted N

215. How old is your father?

.3	.4	A.	29 or younger
1.0	.7	B.	30-34
7.8	8.6	C.	35-39
28.1	29.6	D.	40-44
26.2	25.5	E.	45-49
19.4	19.3	F.	50-54
7.9	7.8	G.	55-59
4.0	3.9	H.	60-64
2.1	2.2	I.	65 or older
3.2	2.1	J.	I don't know.
5875	6285		Weighted N
47	47		Median

216. How old is your mother?

.4	.3	A.	29 or younger
2.8	2.5	B.	30-34
21.1	21.7	C.	35-39
32.7	34.5	D.	40-44
22.8	21.8	E.	45-49
11.5	12.3	F.	50-54
4.3	4.2	G.	55-59
1.2	1.2	H.	60-64
.3	.3	I.	65 or older
3.0	1.3	J.	I don't know.
6074	6510		Weighted N
43	43		Median

217. In which branch of the military service did your father serve? *If he served in more than one, mark the one in which he served the longest time.*

22.2	21.2	A.	Army
9.5	9.1	B.	Navy
2.9	2.3	C.	Air Force
1.7	1.4	D.	Marine Corps
1.1	.8	E.	Coast Guard
1.2	1.0	F.	He served in the Merchant Marine instead of the armed forces.
57.2	58.7	G.	He did not serve.
4.2	5.6	H.	He served, but I don't know in which branch.
5979	6373		Weighted N

218. Mark the *one* answer indicating the *highest* level of education your father reached. *Mark the one best answer even if you are not sure.*

3.2	3.4	A.	None, or some grade school
7.9	8.6	B.	Completed grade school
7.0	7.5	C.	Some high school, but did not graduate
15.8	16.5	D.	Graduated from high school
20.9	22.2	E.	Vocational or business school after high school
23.5	21.1	F.	Some junior or regular college, but did not graduate
5.4	5.5	G.	Graduated from a regular 4-year college
6.8	6.7	H.	Master's degree
6.8	6.0	I.	Some work toward doctorate or professional degree
1.6	1.5	J.	Completed doctorate or professional degree
1.0	1.1	K.	I don't know.
6046	6447		Weighted N

M	F	
		219. Mark the *one* answer indicating the *highest* level of education your mother reached. *Mark the one best answer even if you are not sure.*
1.0	1.3	**A.** None, or some grade school
6.2	5.0	**B.** Completed grade school
3.7	4.5	**C.** Some high school, but did not graduate
12.2	13.4	**D.** Graduated from high school
20.5	24.8	**E.** Vocational or business school after high school
35.0	29.9	**F.** Some junior or regular college, but did not graduate
6.7	8.1	**G.** Graduated from a regular 4-year college
6.0	6.1	**H.** Master's degree
6.9	5.4	**I.** Some work toward doctorate or professional degree
1.1	.9	**J.** Completed doctorate or professional degree
.6	.7	**K.** I don't know.
6090	6523	Weighted N
		220. With whom are you now living; that is, who are the heads of the house?
81.4	80.9	**A.** Mother and father
8.0	8.5	**B.** Mother only
1.8	1.4	**C.** Father only
.4	.3	**D.** Sometimes with my mother, sometimes with my father
3.4	3.8	**E.** Mother and stepfather
1.1	1.1	**F.** Father and stepmother
2.0	1.7	**G.** Grandparents, aunt, uncle, or cousins
.5	.6	**H.** Brother or sister
.4	.4	**I.** Foster parents (not relatives)
1.1	1.4	**J.** Someone not listed above
6148	6595	Weighted N
		221. What is the total number of living children in your family? *Include yourself, together with all full brothers and sisters, half-brothers and sisters, stepbrothers and sisters, and foster brothers and sisters. Include those not now living in your home.*
10.3	9.6	**A.** One
24.9	25.0	**B.** Two
22.8	22.0	**C.** Three
15.5	16.2	**D.** Four
9.9	10.0	**E.** Five
6.1	6.1	**F.** Six
3.8	3.8	**G.** Seven
2.3	2.7	**H.** Eight
1.5	1.7	**I.** Nine
1.0	1.1	**J.** Ten
.6	.7	**K.** Eleven
.9	1.1	**L.** Twelve or more
6134	6583	Weighted N
3	3	Median
		222. How many of your brothers, half-brothers, foster brothers, or stepbrothers are older than you? *Do not count your own twin brother.*
61.5	61.1	**A.** None
23.4	23.8	**B.** One
8.3	8.4	**C.** Two
3.2	3.4	**D.** Three
1.4	1.4	**E.** Four
.7	.7	**F.** Five
.5	.4	**G.** Six
.3	.3	**H.** Seven
.2	.1	**I.** Eight
.1	.1	**J.** Nine
.1	.0	**K.** Ten
.2	.1	**L.** Eleven or more
6085	6491	Weighted N

M	F	
		223. How many of your sisters, half-sisters, foster sisters, or stepsisters are older than you? *Do not count your own twin sister.*
63.6	63.2	**A.** None
22.4	22.5	**B.** One
7.6	8.0	**C.** Two
3.1	3.2	**D.** Three
1.5	1.6	**E.** Four
.7	.7	**F.** Five
.4	.4	**G.** Six
.2	.2	**H.** Seven
.2	.1	**I.** Eight
.1	.1	**J.** Nine
.1	.0	**K.** Ten
.1	.1	**L.** Eleven or more
6086	6543	Weighted N
		224. Where did you live just before moving to this community?
60.2	61.5	**A.** I have lived here all my life.
3.0	3.0	**B.** New England States (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut)
6.4	6.4	**C.** Middle Atlantic States (New York, New Jersey, Pennsylvania)
4.9	4.8	**D.** South Atlantic States (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida)
7.8	7.5	**E.** East North Central States (Ohio, Indiana, Illinois, Michigan, Wisconsin)
4.2	3.6	**F.** West North Central States (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas)
2.5	2.5	**G.** East South Central States (Kentucky, Tennessee, Alabama, Mississippi)
3.7	3.5	**H.** West South Central States (Arkansas, Louisiana, Oklahoma, Texas)
1.9	2.0	**I.** Mountain States (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada)
3.9	3.5	**J.** Pacific States (Washington, Oregon, California, Hawaii, Alaska)
.2	.2	**K.** United States possessions (Puerto Rico, Guam, etc.)
1.3	1.3	**L.** In a foreign country
6079	6540	Weighted N
		225. How many rooms are in your home? *Count all rooms; bedrooms, bathrooms, kitchen, living room, dining room, recreation room, enclosed porch, etc.*
.3	.2	**A.** One
.4	.2	**B.** Two
1.2	.8	**C.** Three
3.4	2.8	**D.** Four
8.4	8.6	**E.** Five
15.7	16.8	**F.** Six
33.3	34.9	**G.** Seven or eight
20.1	20.7	**H.** Nine or ten
9.3	8.7	**I.** Eleven or twelve
4.1	3.5	**J.** Thirteen or fourteen
2.0	1.5	**K.** Fifteen or sixteen
1.9	1.2	**L.** Seventeen or more
6056	6521	Weighted N
7.7	7.7	Median
		226. How many people live in your home? *Include yourself, brothers, sisters, parents, relatives, boarders, roomers, servants, etc.*
2.7	2.4	**A.** Two
17.5	16.7	**B.** Three
28.1	28.4	**C.** Four
22.5	22.4	**D.** Five
13.0	13.6	**E.** Six
7.1	7.4	**F.** Seven
3.9	4.0	**G.** Eight
2.3	2.2	**H.** Nine
1.2	1.3	**I.** Ten
.7	.7	**J.** Eleven
.4	.3	**K.** Twelve
.6	.5	**L.** Thirteen or more
6044	6544	Weighted N
5	5	Median

M	F		
		227.	**How tall are you? *Choose the closest one.***
.2	2.4	**A.**	**4 feet 5 inches or less**
.3	.5	**B.**	**4 feet 6 inches to 4 feet 8 inches**
.4	1.8	**C.**	**4 feet 9 inches to 4 feet 11 inches**
.8	22.2	**D.**	**5 feet 0 inches to 5 feet 2 inches**
3.9	43.1	**E.**	**5 feet 3 inches to 5 feet 5 inches**
20.0	26.5	**F.**	**5 feet 6 inches to 5 feet 8 inches**
41.6	3.4	**G.**	**5 feet 9 inches to 5 feet 11 inches**
28.0	.2	**H.**	**6 feet 0 inches to 6 feet 2 inches**
4.4	.1	**I.**	**6 feet 3 inches to 6 feet 5 inches**
.5	.0	**J.**	**6 feet 6 inches or more**
6037	6581		Weighted N
5'10"	5'4"		Median
		228.	**How much do you weigh? *Choose the closest one.***
.2	.1	**A.**	**74 pounds or less**
.2	.5	**B.**	**75- 89 pounds**
.4	10.5	**C.**	**90-104 pounds**
2.0	31.3	**D.**	**105-119 pounds**
11.0	32.0	**E.**	**120-134 pounds**
25.6	13.3	**F.**	**135-149 pounds**
28.4	3.7	**G.**	**150-164 pounds**
17.9	1.3	**H.**	**165-179 pounds**
8.1	.5	**I.**	**180-194 pounds**
3.6	.2	**J.**	**195-209 pounds**
1.5	.1	**K.**	**210-224 pounds**
1.2	.1	**L.**	**225 pounds or more**
6051	6564		Weighted N
154	120		Median
		229.	**How old were you when you learned social dancing?**
17.0	3.0	**A.**	**I never learned to dance.**
4.7	11.2	**B.**	**9 or younger**
5.1	9.4	**C.**	**10**
6.0	11.2	**D.**	**11**
15.3	22.6	**E.**	**12**
17.0	17.9	**F.**	**13**
15.1	11.1	**G.**	**14**
10.8	5.7	**H.**	**15**
5.9	2.3	**I.**	**16**
3.0	.7	**J.**	**17**
.1	.0	**K.**	**18 or older**
6040	6556		Weighted N
13	12		Median
		230.	**How many athletic teams have you been a member of in the last 3 years? *Count intra-mural, church, school, and other teams.***
21.4	43.4	**A.**	**None**
11.6	15.4	**B.**	**One**
13.0	13.0	**C.**	**Two**
13.7	10.1	**D.**	**Three**
9.6	5.6	**E.**	**Four**
7.1	3.5	**F.**	**Five**
5.7	2.4	**G.**	**Six**
3.7	1.3	**H.**	**Seven**
3.0	1.0	**I.**	**Eight**
2.5	.7	**J.**	**Nine**
1.8	.6	**K.**	**Ten**
6.8	2.9	**L.**	**Eleven or more**
6049	6536		Weighted N
2.8	1.0		Median
		231.	**How many clubs or organizations (other than athletic) have you belonged to in the last 3 years?**
15.3	8.2	**A.**	**None**
15.6	10.6	**B.**	**One**
19.6	15.0	**C.**	**Two**
17.4	16.9	**D.**	**Three**
11.3	13.7	**E.**	**Four**
7.6	11.3	**F.**	**Five**
4.6	7.6	**G.**	**Six**
2.8	4.6	**H.**	**Seven**
1.9	3.6	**I.**	**Eight**
.9	1.9	**J.**	**Nine**
.7	2.0	**K.**	**Ten**
2.3	4.7	**L.**	**Eleven or more**
6028	6548		Weighted N
2.5	4.5		Median

M	F		
		232.	**What do you *expect* to do about military service?**
.5	92.6	**A.**	**Never serve because I am a girl**
.4	.1	**B.**	**Quit high school and enlist**
15.4	.8	**C.**	**Enlist right after high school**
17.7	.2	**D.**	**Work for a commission through a college ROTC program, military school, or one of the service academies**
5.8	.2	**E.**	**Enlist after I have completed some college training**
10.4	.3	**F.**	**Enlist after I have graduated from college**
5.3	.3	**G.**	**Enlist after I have worked for several years**
4.7	.0	**H.**	**Enlist in the Reserves or National Guard**
11.4	.0	**I.**	**Wait until I am drafted**
3.1	.1	**J.**	**Never serve because I do not think I can pass the physical examination**
2.7	.6	**K.**	**Never serve for other reasons**
22.7	4.6	**L.**	**I have no idea what I will do about military service.**
5965	6530		Weighted N
		233.	**What would you really *like* to do about military service?**
.6	90.9	**A.**	**Never serve because I am a girl**
.8	.1	**B.**	**Quit high school and enlist**
15.6	1.5	**C.**	**Enlist right after high school**
19.0	.2	**D.**	**Work for a commission through a college ROTC program, military school, or one of the service academies**
5.2	.4	**E.**	**Enlist after I have completed some college training**
10.7	.6	**F.**	**Enlist after I have graduated from college**
5.1	.5	**G.**	**Enlist after I have worked for several years**
4.3	.1	**H.**	**Enlist in the Reserves or National Guard**
10.1	.0	**I.**	**Wait until I am drafted**
2.6	.1	**J.**	**Never serve because I do not think I can pass the physical examination**
9.4	.9	**K.**	**Never serve for other reasons**
16.8	4.6	**L.**	**I have no preference.**
5950	6557		Weighted N
		234.	**Which *one* of the following is your *most important* reason for your choice of ways to enter the military (that is, enlisting, being drafted, etc.)?**
9.4	94.9	**A.**	**I do not expect to serve.**
18.5	1.6	**B.**	**Being able to choose among the branches**
6.8	.1	**C.**	**Short active service requirement**
12.0	.1	**D.**	**Getting active duty over with**
11.5	.5	**E.**	**Obtaining a good rank or rating**
8.2	.6	**F.**	**Obtaining the best chance for advancement in the service**
2.6	.3	**G.**	**Having a chance to serve with friends**
1.9	.5	**H.**	**Having a chance to serve in the place (city, country, etc.) I want**
6.8	.4	**I.**	**Starting a career before entering the service**
3.1	.0	**J.**	**Allows me to delay serving as long as possible**
16.7	.6	**K.**	**Allows me to complete my education**
2.4	.2	**L.**	**Allows me to live near home while serving**
5840	6499		Weighted N
		235.	**In which branch of the service do you expect to serve?**
4.3	30.3	**A.**	**I do not expect to serve, for physical reasons.**
5.8	63.8	**B.**	**I do not expect to serve, for reasons other than physical.**
25.8	.8	**C.**	**Army**
27.2	2.3	**D.**	**Air Force**
21.2	1.7	**E.**	**Navy**
7.7	.6	**F.**	**Marine Corps**
2.2	.1	**G.**	**Coast Guard**
2.6	.1	**H.**	**Army Reserves or National Guard**
1.2	.1	**I.**	**Air Force Reserves or National Guard**
1.0	.0	**J.**	**Navy Reserves**
.6	.0	**K.**	**Marine Corps Reserves**
.4	.0	**L.**	**Coast Guard Reserves**
5903	6184		Weighted N

M	F		
		236.	**Which *one* of the following is the *most important* reason for your choice of a branch of the service?**
10.4	94.4	**A.**	**I do not expect to serve.**
9.3	.4	**B.**	**Offers the best plan for completing required service**
30.7	1.7	**C.**	**Has good training opportunities**
2.6	.1	**D.**	**My friends chose this branch**
1.3	.2	**E.**	**Has the best looking uniform**
1.0	.0	**F.**	**Receives the most glory from other people**
2.6	.1	**G.**	**Offers the most pleasant duty assignments**
2.9	.1	**H.**	**Allows me choice of a desirable location (near home, a large city, etc.)**
9.3	1.4	**I.**	**Travel or adventure**
3.1	.2	**J.**	**Best living conditions**
26.8	1.4	**K.**	**Some reason not listed above**
5625	6416		Weighted N
		237.	**Which *one* of the following *best* describes the college you expect to attend?**
29.2	41.9	**A.**	**I do not expect to go to college.**
5.1	8.5	**B.**	**A teachers college**
3.8	.5	**C.**	**An agricultural college**
13.0	.4	**D.**	**An engineering college**
12.7	12.6	**E.**	**A liberal arts college**
1.8	1.7	**F.**	**A college specializing in music or fine arts**
17.8	13.9	**G.**	**A university which includes many of the above colleges**
9.8	15.4	**H.**	**Some other type of college**
7.0	5.0	**I.**	**I have no plans regarding the type of college I will attend.**
5940	6480		Weighted N
		238.	**How old do you expect to be when you get married?**
.8	1.6	**A.**	**I am already married.**
.4	1.6	**B.**	**17 years old or younger**
1.8	8.4	**C.**	**18 years old**
3.8	10.6	**D.**	**19 years old**
8.7	17.2	**E.**	**20 years old**
24.9	32.5	**F.**	**21 or 22 years old**
27.0	19.1	**G.**	**23 or 24 years old**
16.9	4.8	**H.**	**25 or 26 years old**
5.3	.9	**I.**	**27 to 29 years old**
1.4	.2	**J.**	**30 to 35 years old**
.8	.1	**K.**	**36 or older**
8.2	2.8	**L.**	**I don't expect to marry.**
5884	6467		Weighted N
23	21		Median
		239.	**If all your plans work out as they should, how much money *per year* would you *expect* to be earning *twenty years* after you graduate from high school?**
1.6	10.4	**A.**	**$2,500 or less**
5.0	20.1	**B.**	**$2,500 to $5,000**
13.4	24.7	**C.**	**$5,000 to $7,500**
19.5	17.2	**D.**	**$7,500 to $10,000**
15.7	8.7	**E.**	**$10,000 to $12,500**
11.9	5.7	**F.**	**$12,500 to $15,000**
8.0	3.4	**G.**	**$15,000 to $17,500**
5.9	2.8	**H.**	**$17,500 to $20,000**
4.8	2.2	**I.**	**$20,000 to $22,500**
2.5	1.3	**J.**	**$22,500 to $25,000**
11.6	3.4	**K.**	**$25,000 or more**
5710	5819		Weighted N
$11700	$ 7000		Median
		240.	**How much money is the *least* amount of earnings (per year) that would *satisfy* you in the twentieth year after you graduate from high school?**
3.6	18.7	**A.**	**$2,500 or less**
10.9	26.8	**B.**	**$2,500 to $5,000**
24.0	23.8	**C.**	**$5,000 to $7,500**
21.9	12.4	**D.**	**$7,500 to $10,000**
13.8	6.6	**E.**	**$10,000 to $12,500**
6.7	3.1	**F.**	**$12,500 to $15,000**
5.2	2.3	**G.**	**$15,000 to $17,500**
3.3	1.9	**H.**	**$17,500 to $20,000**
2.6	1.3	**I.**	**$20,000 to $22,500**
1.5	.8	**J.**	**$22,500 to $25,000**
6.5	2.3	**K.**	**$25,000 or more**
5762	5883		Weighted N
$8800	$ 5500		Median

Part V

Directions: The questions in this part are about your health. Each question has *one answer* and *only one answer. Answer every question.* Now, go ahead and answer the questions.

Health

M	F		
		241.	**How many different times have you been sick in bed (as much as a day) in the past year?**
35.9	21.5	**A.**	**None**
43.0	41.2	**B.**	**One or two**
12.5	19.3	**C.**	**Three or four**
4.6	8.0	**D.**	**Five or six**
1.6	3.8	**E.**	**Seven or eight**
2.5	6.2	**F.**	**Nine or more**
6052	6582		Weighted N
1.2	1.9		Median
		242.	**What is the *longest* period of time that you have ever been in bed for sickness or an accident?**
69.3	67.3	**A.**	**Up to one week**
22.1	24.8	**B.**	**Up to one month**
5.5	5.1	**C.**	**Up to three months**
1.7	1.5	**D.**	**Up to six months**
.7	.8	**E.**	**Up to one year**
.6	.6	**F.**	**More than one year**
5984	6518		Weighted N
		243.	**Which one of the following best describes your usual health in the last three years?**
44.0	33.3	**A.**	**Excellent**
35.9	38.7	**B.**	**Very good**
13.3	16.5	**C.**	**Good**
5.8	9.9	**D.**	**Average**
.8	1.5	**E.**	**Poor**
.2	.1	**F.**	**Very poor**
6033	6576		Weighted N
		244.	**Which one of the following best describes your usual health before you were ten years old?**
34.5	30.9	**A.**	**Excellent**
33.1	35.3	**B.**	**Very good**
16.9	16.6	**C.**	**Good**
10.4	11.6	**D.**	**Average**
4.5	5.0	**E.**	**Poor**
.7	.7	**F.**	**Very poor**
6030	6578		Weighted N
		245.	**How many times have you been treated by a doctor (outside of school) for illness, injury or an accident in the past six months?**
47.8	49.5	**A.**	**None**
25.3	23.7	**B.**	**One**
13.0	11.4	**C.**	**Two**
5.9	6.1	**D.**	**Three**
2.5	2.6	**E.**	**Four**
5.4	6.6	**F.**	**Five or more**
6016	6573		Weighted N
		246.	***On the average*, about how many hours do you sleep each night?**
6.6	5.9	**A.**	**About six or less**
25.6	26.4	**B.**	**About seven**
43.1	45.0	**C.**	**About eight**
19.7	17.5	**D.**	**About nine**
4.3	4.5	**E.**	**About ten**
.8	.7	**F.**	**About eleven or more**
5997	6565		Weighted N
		247.	**How late do you usually stay up on weekends?**
1.8	6.5	**A.**	**9 P.M. or earlier**
6.5	5.9	**B.**	**10 P.M.**
16.7	18.9	**C.**	**11 P.M.**
31.5	33.3	**D.**	**12 Midnight**
28.1	29.7	**E.**	**1 A.M.**
15.4	10.9	**F.**	**2 A.M. or later**
5978	6548		Weighted N

M	F	
18.2	19.4	**248. Do you wear glasses all the time?**
81.8	80.6	A. Yes
6008	6564	B. No
		Weighted N
		249. Do you have trouble seeing things from a distance?
23.3	37.7	A. Yes
76.7	62.3	B. No
6013	6567	Weighted N
		250. Do you wear glasses for special purposes (reading, TV, etc.)?
20.5	38.2	A. Yes
79.5	61.8	B. No
6009	6559	Weighted N
		251. Do you have trouble hearing people talk?
5.0	5.7	A. Yes
95.0	94.3	B. No
6006	6562	Weighted N
		252. Are you hard of hearing?
2.8	2.2	A. Yes
97.2	97.8	B. No
5821	6350	Weighted N
		253. Do you wear a hearing aid?
4.7	4.1	A. Yes
95.3	95.9	B. No
5998	6554	Weighted N
		254. Are you able to speak clearly all of the time?
77.6	82.8	A. Yes
22.4	17.2	B. No
6000	6552	Weighted N
		255. Is your speech easily understood?
80.5	85.0	A. Yes
19.5	15.0	B. No
5992	6551	Weighted N
		256. Do you have more trouble with your skin than others your own age?
13.1	10.2	A. Yes
86.9	89.8	B. No
5992	6549	Weighted N
		257. Do you have more trouble with the skin on your face than others your own age?
16.6	12.2	A. Yes
83.4	87.8	B. No
5978	6541	Weighted N
		258. Have you ever been knocked unconscious?
36.9	18.5	A. Yes
63.1	81.5	B. No
5976	6543	Weighted N
		259. Do you have normal use of both your legs?
91.3	91.0	A. Yes
8.7	9.0	B. No
5971	6538	Weighted N
		260. Do you have normal use of both your arms?
91.5	91.0	A. Yes
8.5	9.0	B. No
5973	6535	Weighted N
		261. Do you have normal use of both your hands?
88.1	87.7	A. Yes
11.9	12.3	B. No
5969	6535	Weighted N
		262. Do you have trouble with your back or spine?
13.9	14.7	A. Yes
86.1	85.3	B. No
5965	6540	Weighted N
		263. Do you have frequent stomach trouble or indigestion?
10.1	13.3	A. Yes
89.9	86.7	B. No
5957	6531	Weighted N
		264. Have you ever worn a shoulder brace, corrective shoes, leg brace, or any other appliance?
M	F	
12.1	9.4	A. Yes
87.9	90.6	B. No
5951	6528	Weighted N
		265. Have you ever had mumps?
71.0	66.0	A. Yes
29.0	34.0	B. No
5926	6515	Weighted N
		266. Have you ever had rheumatic fever?
6.0	4.8	A. Yes
94.0	95.2	B. No
5926	6507	Weighted N
		267. Have you ever had asthma?
8.3	6.6	A. Yes
91.7	93.4	B. No
5921	6497	Weighted N
		268. Have you ever had hay fever?
19.5	19.8	A. Yes
80.5	80.2	B. No
5924	6503	Weighted N
		269. Has a doctor ever told you that you have an allergy?
19.1	25.3	A. Yes
80.9	74.7	B. No
5927	6505	Weighted N
		270. Has a doctor ever told you that you have heart trouble?
5.1	4.7	A. Yes
94.9	95.3	B. No
5927	6507	Weighted N
		271. Have you ever had infantile paralysis (polio)?
3.1	2.9	A. Yes
96.9	97.1	B. No
5922	6501	Weighted N
		272. Have you had frequent sore throats?
18.0	33.2	A. Yes
82.0	66.8	B. No
5916	6502	Weighted N
		273. Have you ever had severely aching joints?
14.9	17.7	A. Yes
85.1	82.3	B. No
5871	6452	Weighted N
		274. Do you often get severe headaches?
11.1	24.4	A. Yes
88.9	75.6	B. No
5865	6452	Weighted N
		275. Have you ever had spells of dizziness and faintness?
21.4	35.2	A. Yes
78.6	64.5	B. No
5858	6445	Weighted N
		276. Do you often get aches and pains even when you are not sick enough to see a doctor?
13.4	28.0	A. Yes
86.6	72.0	B. No
5846	6433	Weighted N
		277. Do you catch colds very often?
20.9	26.8	A. Yes
79.1	73.2	B. No
5851	6439	Weighted N
		278. Do you have trouble getting rid of a cold?
26.1	31.3	A. Yes
73.9	68.7	B. No
5844	6433	Weighted N

Items 279-283. **For health reasons are you required to do the following:**

M	F		
		279. Follow a special diet as prescribed by a doctor?	
4.2	6.4	A.	Yes
95.8	93.6	B.	No
5828	6422		Weighted N
		280. Get more sleep than others your age?	
6.1	6.8	A.	Yes
93.9	93.2	B.	No
5816	6412		Weighted N
		281. Avoid too much physical exertion or strenuous exercise?	
7.6	9.8	A.	Yes
92.4	90.2	B.	No
5809	6402		Weighted N
		282. Take special exercises?	
6.0	4.8	A.	Yes
94.0	95.2	B.	No
5806	6407		Weighted N
		283. Take medicine or pills prescribed by a doctor?	
8.6	18.0	A.	Yes
91.4	82.0	B.	No
5790	6393		Weighted N

Awards

Items 284-291. **For each of the following, how many awards or competitions have you won since you started the ninth grade?** ***Do not include awards or competitions which included only a single class or grade in school. Count activities which were on a school, city-wide, state-wide, or national level.***

M	F		
		284. Science	
89.2	94.3	A.	None
6.6	3.7	B.	One
2.2	1.0	C.	Two
.9	.3	D.	Three
.3	.1	E.	Four
.8	.6	F.	Five or more
5786	6409		Weighted N
		285. Mathematics	
92.4	96.7	A.	None
4.1	1.9	B.	One
1.6	.6	C.	Two
.8	.2	D.	Three
.3	.1	E.	Four
.7	.6	F.	Five or more
5772	6391		Weighted N
		286. Foreign languages	
95.5	95.7	A.	None
2.2	2.5	B.	One
1.0	.8	C.	Two
.5	.3	D.	Three
.2	.1	E.	Four
.6	.6	F.	Five or more
5768	6389		Weighted N
		287. Writing, debate, or oratory	
90.3	87.7	A.	None
5.2	7.3	B.	One
2.1	2.5	C.	Two
.9	1.0	D.	Three
.4	.5	E.	Four
1.2	1.1	F.	Five or more
5755	6382		Weighted N
		288. Art	
92.1	92.5	A.	None
4.0	4.2	B.	One
1.8	1.6	C.	Two
.8	.6	D.	Three
.4	.3	E.	Four
1.0	.8	F.	Five or more
5754	6388		Weighted N

M	F		
		289. Music	
85.5	83.4	A.	None
2.6	7.2	B.	One
3.4	3.6	C.	Two
2.1	2.1	D.	Three
.9	1.3	E.	Four
2.5	2.5	F.	Five or more
5760	6387		Weighted N
		290. Athletics	
56.8	81.3	A.	None
12.1	7.9	B.	One
9.3	4.3	C.	Two
6.5	2.5	D.	Three
3.8	1.4	E.	Four
11.5	2.5	F.	Five or more
5762	6389		Weighted N
		291. Activities, such as student government, Boy Scouts or Girl Scouts, YMCA or YWCA, etc.	
70.1	78.7	A.	None
9.1	8.5	B.	One
7.0	4.4	C.	Two
4.4	2.5	D.	Three
2.3	1.5	E.	Four
7.1	4.5	F.	Five or more
5754	6381		Weighted N

Driving

M	F		
		292. How old were you when you learned to drive a car?	
6.1	20.5	A.	I do not know how to drive a car.
29.3	9.6	B.	13 or younger
19.0	10.8	C.	14
21.0	20.6	D.	15
20.3	30.6	E.	16
4.3	7.9	F.	17 or older
5760	6387		Weighted N
		293. About how many times in the past 6 months have you driven or ridden on a motorcycle?	
70.3	83.5	A.	None
15.1	8.5	B.	About 1 to 4 times
3.8	1.6	C.	About 5 to 9 times
2.2	1.3	D.	About 10 to 19 times
1.1	1.0	E.	About 20 to 29 times
7.5	4.1	F.	About 30 times or more
5758	6387		Weighted N
		294. On the average, how many times a week during the past school year have you driven a car (for purposes other than work)? ***Count evening dates and driving to school as separate occasions.***	
13.4	32.4	A.	None
5.8	8.4	B.	Less than one time, on the average
10.4	12.0	C.	One or two times
15.8	13.5	D.	Three to five times
10.1	7.9	E.	Six to nine times
44.4	25.8	F.	Ten or more times
5738	6366		Weighted N
		295. Do you have a car of your own, or one that is mostly for your use?	
47.8	20.5	A.	Yes
52.2	79.5	B.	No
5794	6422		Weighted N
		296. Did you take driver training at school?	
44.6	46.5	A.	Yes
22.0	22.2	B.	No, this course is not available.
32.1	29.9	C.	No, although the course is available.
1.3	1.5	D.	No, but I expect to take the course in a later grade.
5752	6387		Weighted N

Part VI: PLANS

Directions: The questions in this part are about your plans for the future. Each question has *one answer* and *only one answer*. Answer each question sincerely and thoughtfully. *Answer every question even if your plans are not definite.* Now, go ahead and answer the questions.

M	F	
1.7	1.6	**297.** Do you think you will quit high school before you graduate?
.8	.3	**A.** I definitely will leave.
1.1	.5	**B.** I am almost sure to leave.
6.2	3.9	**C.** I am likely to leave.
90.2	93.8	**D.** I am *not* likely to leave.
5777	6432	**E.** I definitely will *not* leave.
		Weighted N
5.7	6.8	**298.** After you leave high school, are you likely to go to a vocational school?
4.9	4.8	**A.** I definitely will go.
12.0	8.1	**B.** I am almost sure to go.
32.5	29.4	**C.** I am likely to go.
44.8	50.9	**D.** I am *not* likely to go.
5707	6322	**E.** I definitely will *not* go.
		Weighted N
3.9	6.7	**299.** After you leave high school, are you likely to go to a business or commercial school?
3.6	6.0	**A.** I definitely will go.
10.2	14.2	**B.** I am almost sure to go.
34.7	32.1	**C.** I am likely to go.
47.6	41.0	**D.** I am *not* likely to go.
5726	6397	**E.** I definitely will *not* go.
		Weighted N
7.8	6.1	**300.** After you leave high school, are you likely to go to a junior college or a four-year college *part-time*?
6.7	4.3	**A.** I definitely will go.
13.9	8.9	**B.** I am almost sure to go.
33.4	28.7	**C.** I am likely to go.
38.1	51.9	**D.** I am *not* likely to go.
5733	6401	**E.** I definitely will *not* go.
		Weighted N
31.2	26.1	**301.** After you leave high school, are you likely to go to a junior college or a four-year college *full-time*?
15.0	10.0	**A.** I definitely will go.
13.0	7.9	**B.** I am almost sure to go.
19.9	17.7	**C.** I am likely to go.
20.9	38.3	**D.** I am *not* likely to go.
5719	6400	**E.** I definitely will *not* go.
		Weighted N
48.1	35.9	**302.** Which type of college are you more likely to attend?
10.7	9.3	**A.** Four-year college
12.5	12.2	**B.** Junior college
28.6	42.7	**C.** I don't know which I will attend.
5712	6381	**D.** I don't expect to go to college.
		Weighted N
27.3	41.6	**303.** When do you plan to start college?
53.4	45.6	**A.** I don't plan to go to college.
5.2	.5	**B.** I plan to start college right after high school.
4.4	3.7	**C.** I plan to start college after completing military service.
9.6	8.7	**D.** I plan to start college after I have worked for a few years.
5697	6380	**E.** I may go to college sometime in the future, but my plans are not definite.
		Weighted N

M	F	
1.3	.7	**304.** What is the greatest amount of education you expect to have during your life?
22.1	29.1	**A.** I don't expect to finish high school.
14.8	26.6	**B.** I expect to graduate from high school.
9.1	10.6	**C.** I expect to obtain vocational, business school, or junior college training.
31.1	23.6	**D.** I expect to obtain some (less than 4 years) regular college training.
21.5	9.4	**E.** I expect to graduate from a regular four-year college.
5666	6362	**F.** I expect to study for advanced college degrees.
		Weighted N
56.9	62.2	**305.** Have you taken, or do you expect to take, the National Merit Scholarship tests?
8.3	5.2	**A.** No, I have not taken, nor do I expect to take these tests.
34.8	32.6	**B.** Yes, I expect to take these tests.
5651	6345	**C.** Yes, I have taken these tests.
		Weighted N
68.5	64.1	**306.** If there were no other way for you to attend college, would you be willing to take out a loan which you would have to pay back after you graduate?
31.5	35.9	**A.** Yes
5633	6313	**B.** No
		Weighted N

Items 307-318. If you are not planning college, or if you think you might *not* go, how important would each of the following be in changing your mind in favor of going to college?

If you are planning college, or if you think you may go, how important to you is each of the following as a reason for going to college?

40.9	31.8	**307.** A college degree is necessary for the kind of work I want to do.
12.0	9.9	**A.** Extremely important
14.9	12.6	**B.** Very important
11.8	15.7	**C.** Important
11.2	17.6	**D.** Neither important nor unimportant
9.2	12.5	**E.** Unimportant
5563	6278	**F.** Not a reason
		Weighted N
19.4	13.7	**308.** My father wants me to go to college.
16.3	12.8	**A.** Extremely important
24.0	22.7	**B.** Very important
13.5	14.8	**C.** Important
8.5	10.2	**D.** Neither important nor unimportant
18.2	25.8	**E.** Unimportant
5485	6187	**F.** Not a reason
		Weighted N
21.0	15.1	**309.** My mother wants me to go to college.
17.4	13.7	**A.** Extremely important
24.6	24.0	**B.** Very important
12.9	14.5	**C.** Important
8.0	9.5	**D.** Neither important nor unimportant
16.2	23.2	**E.** Unimportant
5512	6213	**F.** Not a reason
		Weighted N
32.5	22.1	**310.** I would be able to earn more money as a college graduate.
23.0	18.7	**A.** Extremely important
20.5	25.3	**B.** Very important
7.9	11.5	**C.** Important
6.8	9.3	**D.** Neither important nor unimportant
9.3	13.1	**E.** Unimportant
5507	6220	**F.** Not a reason
		Weighted N

M	F	311. I want to learn more about the careers I might enter.
22.9	19.4	A. Extremely important
21.2	18.2	B. Very important
23.7	24.5	C. Important
11.5	11.7	D. Neither important nor unimportant
8.2	9.9	E. Unimportant
12.4	16.3	F. Not a reason
5462	6170	Weighted N

		312. I want to meet the kind of person I would like to marry.
13.7	14.8	A. Extremely important
10.0	10.1	B. Very important
15.6	15.8	C. Important
17.4	15.2	D. Neither important nor unimportant
14.3	13.7	E. Unimportant
29.0	30.4	F. Not a reason
5456	6192	Weighted N

		313. I enjoy learning.
13.9	17.0	A. Extremely important
20.7	20.8	B. Very important
30.9	31.5	C. Important
13.9	11.1	D. Neither important nor unimportant
7.5	6.5	E. Unimportant
13.1	13.1	F. Not a reason
5420	6160	Weighted N

		314. My teachers think that I should go to college.
9.9	7.6	A. Extremely important
13.8	11.6	B. Very important
22.8	21.8	C. Important
19.5	18.5	D. Neither important nor unimportant
11.8	12.3	E. Unimportant
22.2	28.2	F. Not a reason
5433	6165	Weighted N

		315. I expect to get into college athletics.
7.7	1.8	A. Extremely important
7.0	2.6	B. Very important
12.3	5.4	C. Important
18.5	11.2	D. Neither important nor unimportant
17.0	18.0	E. Unimportant
37.5	61.0	F. Not a reason
5428	6154	Weighted N

		316. Many of my friends are going to college.
7.3	4.7	A. Extremely important
9.0	5.5	B. Very important
15.5	11.3	C. Important
20.5	16.5	D. Neither important nor unimportant
17.2	18.3	E. Unimportant
30.5	43.6	F. Not a reason
5411	6152	Weighted N

		317. I want to participate actively in college social life.
6.3	5.7	A. Extremely important
8.9	8.0	B. Very important
18.1	17.4	C. Important
20.6	16.0	D. Neither important nor unimportant
16.4	16.0	E. Unimportant
29.8	37.0	F. Not a reason
5401	6142	Weighted N

		318. I want to make good personal contacts for business or an occupation.
14.5	12.7	A. Extremely important
15.7	12.6	B. Very important
22.7	22.5	C. Important
14.8	14.0	D. Neither important nor unimportant
10.7	11.0	E. Unimportant
21.6	27.2	F. Not a reason
5387	6126	Weighted N

Items 319-332. If you are planning college, or if you think you may go, how important would each of the following be in changing your mind about going to college?

If you are not planning college, or if you think you might *not* go, how important to you is each of the following as a reason for *not* going to college?

M	F	319. A college education would not help me to do the things that I am most interested in.
19.0	19.3	A. Extremely important
11.1	11.0	B. Very important
16.7	18.5	C. Important
11.8	12.3	D. Neither important nor unimportant
12.5	13.1	E. Unimportant
28.9	25.9	F. Not a reason
5243	6018	Weighted N

		320. I want to get a job and start earning a living as soon as possible.
12.4	15.4	A. Extremely important
12.9	15.4	B. Very important
21.3	24.9	C. Important
13.1	11.6	D. Neither important nor unimportant
15.6	12.5	E. Unimportant
24.6	20.2	F. Not a reason
5222	6026	Weighted N

		321. I need to start earning a living in order to support myself.
10.8	12.8	A. Extremely important
12.3	13.6	B. Very important
21.3	22.5	C. Important
14.2	11.8	D. Neither important nor unimportant
14.7	13.2	E. Unimportant
26.7	26.1	F. Not a reason
5194	6015	Weighted N

		322. It would cost more than my parents can afford.
11.6	16.4	A. Extremely important
13.2	14.7	B. Very important
22.8	23.3	C. Important
13.3	10.2	D. Neither important nor unimportant
13.1	10.6	E. Unimportant
26.0	24.8	F. Not a reason
5168	5992	Weighted N

		323. It would cost more than my parents are willing to pay.
5.6	7.5	A. Extremely important
8.0	8.9	B. Very important
16.4	17.2	C. Important
16.1	13.9	D. Neither important nor unimportant
16.9	15.0	E. Unimportant
37.0	37.4	F. Not a reason
5152	5961	Weighted N

		324. I would rather get married.
5.1	12.9	A. Extremely important
5.6	7.8	B. Very important
11.8	15.7	C. Important
14.4	12.3	D. Neither important nor unimportant
17.5	13.5	E. Unimportant
45.5	37.8	F. Not a reason
6133	5957	Weighted N

		325. My high school grades are too low.
8.8	8.9	A. Extremely important
10.1	9.9	B. Very important
21.4	21.2	C. Important
13.1	10.1	D. Neither important nor unimportant
12.4	10.4	E. Unimportant
34.1	39.5	F. Not a reason
5126	5937	Weighted N

M	F		
		326. I don't like to study.	
7.4	8.2	A.	Extremely important
9.5	9.5	B.	Very important
19.3	19.3	C.	Important
14.3	10.9	D.	Neither important nor unimportant
13.0	11.7	E.	Unimportant
36.4	40.4	F.	Not a reason
5106	5915		Weighted N
		327. I don't think I have the ability.	
6.7	8.1	A.	Extremely important
10.2	10.5	B.	Very important
18.7	20.7	C.	Important
12.7	9.8	D.	Neither important nor unimportant
12.5	10.2	E.	Unimportant
39.1	40.7	F.	Not a reason
5087	5898		Weighted N
		328. It would cost more than it is worth to me.	
5.5	6.8	A.	Extremely important
7.6	8.1	B.	Very important
14.5	16.0	C.	Important
12.9	10.2	D.	Neither important nor unimportant
14.4	12.2	E.	Unimportant
45.0	46.7	F.	Not a reason
5066	5882		Weighted N
		329. My mother does not want me to go.	
3.2	3.3	A.	Extremely important
4.6	4.2	B.	Very important
10.1	11.5	C.	Important
12.7	11.7	D.	Neither important nor unimportant
15.5	13.5	E.	Unimportant
53.9	55.9	F.	Not a reason
5048	5864		Weighted N
		330. My father does not want me to go.	
3.2	3.1	A.	Extremely important
4.7	4.1	B.	Very important
10.0	11.1	C.	Important
12.6	11.6	D.	Neither important nor unimportant
15.8	13.7	E.	Unimportant
53.7	56.4	F.	Not a reason
5025	5842		Weighted N
		331. Most of my friends will not go to college.	
2.6	1.8	A.	Extremely important
3.6	2.1	B.	Very important
7.6	5.4	C.	Important
13.3	11.2	D.	Neither important nor unimportant
18.7	18.3	E.	Unimportant
54.3	61.2	F.	Not a reason
5040	5858		Weighted N
		332. I probably would not use a college education on a job.	
7.5	8.2	A.	Extremely important
8.9	8.5	B.	Very important
14.4	15.9	C.	Important
11.8	10.1	D.	Neither important nor unimportant
13.0	12.2	E.	Unimportant
44.3	45.1	F.	Not a reason
4993	5797		Weighted N

Items 333-336. For each of the following statements indicate how much you agree or disagree.

		333. Success in life depends upon ability and effort, not how much education one has.	
24.7	24.1	A.	Agree strongly
32.4	36.3	B.	Agree
23.8	24.1	C.	Neither agree nor disagree
13.7	12.3	D.	Disagree
5.3	3.1	E.	Disagree strongly
5139	5990		Weighted N
		334. Girls should go to college only if they plan to use their education on a job.	
20.2	15.3	A.	Agree strongly
31.3	26.0	B.	Agree
21.1	19.8	C.	Neither agree nor disagree
21.0	28.8	D.	Disagree
6.4	10.1	E.	Disagree strongly
5103	5952		Weighted N
		335. More girls should go to college because the country is going to need more trained women to fill important jobs.	
12.5	15.1	A.	Agree strongly
36.7	39.8	B.	Agree
31.1	31.7	C.	Neither agree nor disagree
14.5	11.1	D.	Disagree
5.2	2.4	E.	Disagree strongly
5100	5955		Weighted N
		336. It is not necessary to have a college education in order to earn a good salary or be a leader in the community.	
12.3	9.6	A.	Agree strongly
28.0	27.5	B.	Agree
23.6	26.5	C.	Neither agree nor disagree
23.3	24.6	D.	Disagree
12.8	11.7	E.	Disagree strongly
5087	5946		Weighted N
		337. How much education do your parents or guardians want you to have?	
1.5	.8	A.	They don't care whether I stay in high school.
9.1	13.5	B.	High school only
14.8	28.5	C.	Vocational school, business school, or junior college
49.4	35.3	D.	A college degree
10.9	5.8	E.	Professional or graduate school
14.3	16.2	F.	I don't know.
5082	5939		Weighted N
		338. How much education are most of your friends planning to obtain?	
1.7	.5	A.	They are planning to quit high school.
19.9	21.0	B.	They are planning to complete only high school.
13.0	24.1	C.	They are planning to obtain vocational school, business school, or junior college training.
44.6	36.7	D.	They are planning to obtain four-year college training.
5.9	4.0	E.	They are planning to obtain professional or graduate training.
14.9	13.9	F.	I don't know.
5064	5934		Weighted N

Military Plans

		339. Do you think that you would *like* to make a lifetime career in the military service?	
10.2	2.6	A.	Like very much
17.6	5.2	B.	Like fairly well
22.1	19.0	C.	Indifferent
13.9	7.0	D.	Dislike a little
36.3	66.2	E.	Dislike very much
5070	5771		Weighted N
		340. Do you think you *will* make a lifetime career in the military service?	
37.8	77.9	A.	Definitely will not
20.0	9.8	B.	Very unlikely
23.5	7.3	C.	Unlikely
10.2	1.5	D.	Likely
6.1	1.6	E.	Very likely
2.4	2.0	F.	Definitely will
5039	5762		Weighted N

M	F		
		341.	**Under which *one* of the following conditions would you be *most likely* to consider the military service for a lifetime career?**
9.6	8.2	**A.**	**I would consider it under present conditions.**
21.4	3.8	**B.**	**If I became eligible for commission as an officer**
16.2	7.8	**C.**	**If I were given desirable duty or training**
12.5	2.3	**D.**	**If I advanced rapidly**
10.1	2.7	**E.**	**If the salary were better**
30.2	75.2	**F.**	**I would not consider it under any conditions.**
4972	5638		Weighted N

Items 342-346. **What is the *longest* period of *active* duty time for which you would consider enlisting in each branch of the service?**

342. Army

39.0	86.7	**A.**	**I would not consider enlisting in this branch.**
15.9	3.7	**B.**	**Six months**
24.9	5.2	**C.**	**Two years**
10.2	1.4	**D.**	**Three years**
7.0	.8	**E.**	**Four years**
3.0	2.1	**F.**	**Six years**
4944	5575		Weighted N

343. Navy

32.6	80.9	**A.**	**I would not consider enlisting in this branch.**
11.6	5.1	**B.**	**Six months**
24.0	7.2	**C.**	**Two years**
11.9	2.4	**D.**	**Three years**
14.0	2.1	**E.**	**Four years**
6.0	2.3	**F.**	**Six years**
4904	5525		Weighted N

344. Air Force

29.3	80.6	**A.**	**I would not consider enlisting in this branch.**
10.0	4.2	**B.**	**Six months**
21.1	7.1	**C.**	**Two years**
12.7	2.8	**D.**	**Three years**
18.2	2.6	**E.**	**Four years**
8.8	2.7	**F.**	**Six years**
4900	5517		Weighted N

345. Marine Corps

46.9	86.4	**A.**	**I would not consider enlisting in this branch.**
11.5	3.6	**B.**	**Six months**
18.2	4.7	**C.**	**Two years**
9.4	1.8	**D.**	**Three years**
9.6	1.4	**E.**	**Four years**
4.4	2.2	**F.**	**Six years**
4896	5518		Weighted N

346. Coast Guard

48.2	89.4	**A.**	**I would not consider enlisting in this branch.**
12.6	3.3	**B.**	**Six months**
18.8	3.4	**C.**	**Two years**
8.4	1.2	**D.**	**Three years**
7.8	.8	**E.**	**Four years**
4.1	1.9	**F.**	**Six years**
4895	5517		Weighted N

Occupations

		347.	**How many different occupations have you seriously considered entering?**
6.0	3.2	**A.**	**None**
12.6	15.6	**B.**	**One**
33.3	40.7	**C.**	**Two**
30.0	29.1	**D.**	**Three**
7.9	6.4	**E.**	**Four**
10.2	5.1	**F.**	**Five or more**
4892	5810		Weighted N
2.4	2.3		Median

M	F		
		348.	**How definite is your present choice of an occupation?**
10.3	19.9	**A.**	**Completely decided**
17.5	22.8	**B.**	**Very definite**
39.9	36.7	**C.**	**Fairly definite**
15.4	9.6	**D.**	**Fairly indefinite**
7.7	5.4	**E.**	**Very indefinite**
9.2	5.6	**F.**	**Completely undecided**
4874	5793		Weighted N

349. What grade were you in when you decided upon your present choice of an occupation?

17.9	10.2	**A.**	**I have not decided upon an occupation.**
4.0	6.4	**B.**	**6th grade or earlier**
5.9	7.0	**C.**	**7th or 8th grade**
6.7	10.8	**D.**	**9th grade**
13.0	15.3	**E.**	**10th grade**
50.5	50.4	**F.**	**11th or 12th grade**
4849	5782		Weighted N

Items 350-355. **How important will each of the following be to you in your choice of a job?**

350. Good income to start or within a few years

31.2	27.2	**A.**	**Extremely important**
27.5	26.2	**B.**	**Very important**
29.4	33.0	**C.**	**Important**
6.6	7.9	**D.**	**Neither important nor unimportant**
2.9	3.2	**E.**	**Unimportant**
2.5	2.4	**F.**	**Not at all important**
4788	5719		Weighted N

351. Job security and permanence

36.0	31.6	**A.**	**Extremely important**
34.3	33.6	**B.**	**Very important**
21.2	25.8	**C.**	**Important**
4.6	5.3	**D.**	**Neither important nor unimportant**
1.8	2.1	**E.**	**Unimportant**
2.1	1.7	**F.**	**Not at all important**
4754	5701		Weighted N

352. Work that seems important to me

40.7	48.6	**A.**	**Extremely important**
33.6	31.9	**B.**	**Very important**
18.8	15.7	**C.**	**Important**
4.4	2.3	**D.**	**Neither important nor unimportant**
1.3	.6	**E.**	**Unimportant**
1.2	.9	**F.**	**Not at all important**
4744	5685		Weighted N

353. Freedom to make my own decisions

29.0	22.4	**A.**	**Extremely important**
30.1	28.0	**B.**	**Very important**
27.1	30.6	**C.**	**Important**
9.4	13.8	**D.**	**Neither important nor unimportant**
2.4	3.3	**E.**	**Unimportant**
1.9	1.9	**F.**	**Not at all important**
4737	5672		Weighted N

354. Opportunity for promotion and advancement in the long run

41.4	35.0	**A.**	**Extremely important**
31.1	28.9	**B.**	**Very important**
17.6	23.1	**C.**	**Important**
5.4	8.1	**D.**	**Neither important nor unimportant**
2.1	2.7	**E.**	**Unimportant**
2.4	2.2	**F.**	**Not at all important**
4719	5669		Weighted N

355. Meeting and working with sociable, friendly people

31.3	47.9	**A.**	**Extremely important**
29.5	27.8	**B.**	**Very important**
24.8	18.1	**C.**	**Important**
8.8	4.1	**D.**	**Neither important nor unimportant**
2.9	1.0	**E.**	**Unimportant**
2.7	1.1	**F.**	**Not at all important**
4707	5662		Weighted N

Items 356-361. Imagine that you have been working for an employer for several years. How important do you think each of the following conditions would be in influencing you to quit to go to work for another employer?

M	F	
		356. If I could get better pay at another place
19.1	16.5	A. Extremely important
21.9	21.2	B. Very important
40.2	42.0	C. Important
11.4	12.8	D. Neither important nor unimportant
4.5	5.0	E. Unimportant
2.9	2.5	F. Not at all important
4680	5654	Weighted N
		357. If the work was not interesting enough
25.4	29.8	A. Extremely important
31.6	32.7	B. Very important
29.7	27.8	C. Important
7.7	5.5	D. Neither important nor unimportant
2.9	2.2	E. Unimportant
2.7	2.0	F. Not at all important
4670	5643	Weighted N
		358. If I could do more important work elsewhere
24.1	30.2	A. Extremely important
32.2	32.1	B. Very important
27.7	24.6	C. Important
10.3	8.7	D. Neither important nor unimportant
3.2	2.9	E. Unimportant
2.5	1.5	F. Not at all important
4650	5620	Weighted N
		359. If I had a poor supervisor
18.5	22.4	A. Extremely important
25.8	26.6	B. Very important
31.9	30.4	C. Important
15.1	13.3	D. Neither important nor unimportant
5.0	4.4	E. Unimportant
3.6	2.9	F. Not at all important
4640	5615	Weighted N
		360. If I didn't like my co-workers
19.5	19.9	A. Extremely important
25.4	24.4	B. Very important
31.0	31.9	C. Important
14.8	14.3	D. Neither important nor unimportant
5.3	5.8	E. Unimportant
4.0	3.6	F. Not at all important
4619	5546	Weighted N
		361. If I did not receive expected promotions or salary increases
23.5	17.1	A. Extremely important
28.4	23.3	B. Very important
31.2	34.5	C. Important
10.3	15.5	D. Neither important nor unimportant
3.6	6.0	E. Unimportant
2.9	3.6	F. Not at all important
4621	5590	Weighted N

Other plans

M	F	
		362. How many children do you expect to have after you marry?
6.9	3.2	A. None
4.1	3.1	B. One
34.9	26.5	C. Two
31.7	27.4	D. Three
15.6	27.0	E. Four
6.8	12.9	F. Five or more
4577	5622	Weighted N
3	3	Median
		363. How well off financially do you *hope* to be in your lifetime?
3.5	3.0	A. Able to provide the necessities
39.2	57.3	B. Comfortable
40.9	31.7	C. Well-to-do
11.3	6.0	D. Wealthy
5.0	1.9	E. Very wealthy
4593	5627	Weighted N
		364. How well off financially do you really *expect* to be in your lifetime?
1.6	1.1	A. Barely able to make a living
11.7	13.7	B. Able to provide the necessities
53.9	67.9	C. Comfortable
25.9	15.0	D. Well-to-do
4.6	1.8	E. Wealthy
2.2	.5	F. Extremely wealthy
4576	5602	Weighted N
		365. For a man who has a wife and children, having a life insurance policy is
77.8	82.8	A. extremely important.
14.0	12.5	B. very important.
5.3	3.8	C. important.
1.4	.5	D. neither important nor unimportant.
.7	.2	E. unimportant.
.8	.3	F. not at all important.
4536	5559	Weighted N
		366. Compared to your (or your future husband's) yearly salary, what is the *greatest* amount of life insurance you expect (or expect him) to have within ten years after you complete high school?
17.4	25.8	A. Up to an amount equal to ½ my (his) yearly salary
29.1	34.6	B. Up to an amount equal to my (his) yearly salary
26.5	22.7	C. Up to an amount equal to twice my (his) yearly salary
12.0	8.7	D. Up to an amount equal to three times my (his) yearly salary
11.1	5.8	E. Up to an amount equal to four or more times my (his) yearly salary
4.0	2.4	F. I do not expect (or expect him) to have a life insurance policy.
4122	4955	Weighted N
		367. Compared to your (or your future husband's) monthly salary, what is the *least* amount of money you expect (or expect him) to have in a savings account in the tenth year after you complete high school?
5.8	3.5	A. I do not expect (or expect him) to have a savings account.
8.1	7.7	B. One month's salary or less
17.5	13.8	C. Up to 3 months' salary
19.5	20.1	D. Up to 6 months' salary
20.6	25.1	E. Up to 1 year's salary
28.5	29.8	F. More than 1 year's salary
4063	5069	Weighted N
		368. Compared to your (or your future husband's) monthly salary, what is the *least* amount of money you expect (or expect him) to have invested in securities (stocks or bonds) in the tenth year after you complete high school?
27.3	33.7	A. I do not expect (or expect him) to have invested in securities (stocks and bonds).
17.0	18.8	B. One month's salary or less
21.3	18.5	C. Up to 3 months' salary
15.1	13.4	D. Up to 6 months' salary
9.6	9.2	E. Up to 1 year's salary
9.7	6.5	F. More than 1 year's salary
3990	5006	Weighted N

369. Compared to your (or your future husband's) monthly salary, how much money do you expect (or expect him) to have invested in real estate? *Do not include your own home.*

M	F		
49.4	67.0	**A.**	I do not expect (or expect him) to have invested in real estate, other than purchasing our own home.
11.3	9.8	**B.**	Up to an amount equal to my (his) monthly salary
11.4	6.7	**C.**	Up to an amount equal to 3 months' salary
8.7	5.6	**D.**	Up to an amount equal to 6 months' salary
6.3	4.4	**E.**	Up to an amount equal to 1 year's salary
12.9	6.5	**F.**	More than 1 year's salary
3956	4981		Weighted N

370. Which *one* of the following tells *best* how you expect to pay for things you buy after you have started to earn a living?

18.6	12.7	**A.**	I expect always to pay cash for everything I buy.
58.4	66.0	**B.**	I expect to pay cash for everything except large purchases, such as a house, a car, etc.
14.0	15.2	**C.**	I expect to make large purchases (house, car, etc.) and some smaller purchases on the installment plan.
6.8	4.7	**D.**	I expect to buy many things on the installment plan.
2.2	1.4	**E.**	I expect to buy almost everything (except needs such as food, rent, etc.) on the installment plan.
4202	5227		Weighted N

371. Which *one* of the following statements tells *best* what you do about saving?

11.3	12.2	**A.**	I save every cent I can, even if I have to do without some things I need.
43.1	37.5	**B.**	I save whatever remains after I have bought most of the things I want.
30.5	36.9	**C.**	I save a definite amount and spend whatever remains.
9.3	6.0	**D.**	I save only after I have bought everything I want.
5.8	7.3	**E.**	I save little or nothing.
4160	5175		Weighted N

372. Which *one* of the following statements tells *best* what you expect to do about saving for the first 5 years after you start to earn a living?

14.9	13.7	**A.**	I expect to save every cent I can, even if I have to do without some things I need.
36.3	27.6	**B.**	I expect to save whatever remains after I have bought most of the things I want.
35.2	51.6	**C.**	I expect to save a definite amount and spend whatever remains.
6.7	3.2	**D.**	I expect to save only after I have everything I want.
5.4	3.4	**E.**	I don't expect to save very much when I start earning a living.
1.4	.6	**F.**	I do not expect to save anything.
4100	5104		Weighted N

373. Among the following, what is the *one most important* thing for which you are now saving?

43.3	35.2	**A.**	College
12.5	19.6	**B.**	Marriage
15.4	4.2	**C.**	A car
4.3	7.3	**D.**	Clothes or recreational equipment
12.3	13.7	**E.**	Something not listed above
12.2	20.0	**F.**	I am not saving now.
4083	5083		Weighted N

374. Among the following, what is the *one most important* thing for which you expect to save after completing your education?

M	F		
18.9	14.2	**A.**	A house or furniture
10.6	7.8	**B.**	A car
9.8	3.8	**C.**	Investment
45.5	57.6	**D.**	Marriage or family
12.7	14.9	**E.**	Something not listed above.
2.4	1.8	**F.**	I do not expect to save.
4063	5064		Weighted N

Part VII: PLANS FOR COLLEGE

Directions: *These questions must be answered only by 11th and 12th grade students.* If you are in the 9th or 10th grade *skip to question 395.*

If you definitely will not go to college (that is, if you marked **E** for questions 300 *and* 301) *skip to question 395.* However, if there is any possibility that you will go to college (that is, if you marked **A, B, C,** or **D** to question 300 *or* 301) answer the following questions. Answer every question even if your answer is not definite.

Cost of college

375. If there were no other way for you to attend any college, what is the largest amount of money you would be willing to borrow for any one year of college? *Assume that you would have to repay the loan after completing college.*

26.8	31.8	**A.**	I would not borrow to attend college.
12.0	18.7	**B.**	About $250 each year
23.4	23.5	**C.**	About $500 each year
13.8	12.6	**D.**	About $750 each year
17.0	11.1	**E.**	About $1000 each year
7.0	2.4	**F.**	More than $1000 each year
3770	4143		Weighted N
$650	$500		Median d/

376. If there were no other way for you to attend college, what is the largest amount of money you would be willing to borrow in order to complete a four-year college degree?

26.0	32.0	**A.**	I would not borrow to attend college.
13.0	17.4	**B.**	Up to $1000
18.4	18.1	**C.**	Up to $2000
13.0	12.0	**D.**	Up to $3000
19.7	15.9	**E.**	Up to $4000
9.9	4.6	**F.**	More than $4000
3698	4033		Weighted N

377. If you were to borrow for college, for each $1000 borrowed which of the following plans would you prefer for repaying the loan after college (interest not included)?

26.3	32.4	**A.**	I would not borrow to attend college.
6.0	4.5	**B.**	Twenty years at $50 a year
14.4	13.1	**C.**	Ten years at $100 a year
26.0	27.7	**D.**	Five years at $200 a year
20.4	18.0	**E.**	Two years at $500 a year
7.0	4.3	**F.**	One year at $1000 a year
3614	3933		Weighted N

378. If you were to borrow for college, what is the *largest amount of money* you would prefer to repay each year after college?

25.8	31.9	**A.**	I would not borrow to attend college.
8.7	11.3	**B.**	Up to $100 a year
16.9	19.2	**C.**	Up to $200 a year
13.5	12.4	**D.**	Up to $300 a year
22.9	18.3	**E.**	Up to $500 a year
12.3	6.9	**F.**	More than $500 a year
3574	3889		Weighted N

d/Based on responses to options B-F.

M	F	
		379. If there were no other way for you to attend any college, what is the *largest percentage of interest* you would be willing to pay in order to obtain a loan?
15.4	22.0	**A.** I would borrow only if no interest is charged.
11.7	12.0	**B.** I would pay as much as 2% interest.
14.3	17.9	**C.** I would pay as much as 3% interest.
32.3	32.3	**D.** I would pay as much as 5% interest.
19.3	12.2	**E.** I would pay more than 5% interest.
7.1	3.6	**F.** I would not borrow to attend college.
3515	3813	Weighted N
		380. If you were to borrow for college, you might have to pay interest on the loan. The following shows the amount of money that interest would cost you at 3 per cent on a $1000 loan for different lengths of time. What period of time would you prefer to take to repay the loan, in annual installments after college, considering the amount that interest would cost you?
27.5	34.0	**A.** I would not borrow to attend college.
14.5	16.1	**B.** One year: total cost of interest—$30
24.6	26.2	**C.** Two years: total cost of interest—$45
24.3	19.0	**D.** Five years: total cost of interest—$90
6.4	3.3	**E.** Ten years: total cost of interest—$165
2.7	1.3	**F.** Fifteen years: total cost of interest—$240
3417	3692	Weighted N
		381. The following shows the amount of money that interest would cost at 6 per cent interest on a $1000 loan for different lengths of time. What period of time would you prefer to take to repay the loan after college, considering the amount that interest would cost you?
29.5	35.9	**A.** I would not borrow to attend college.
17.7	21.1	**B.** One year: total cost of interest—$60
27.8	27.5	**C.** Two years: total cost of interest—$90
18.8	12.2	**D.** Five years: total cost of interest—$180
4.0	2.1	**E.** Ten years: total cost of interest—$330
2.2	1.2	**F.** Fifteen years: total cost of interest—$480
3360	3621	Weighted N
		382. How much money will you need to complete one year of college? *Do not count living expenses. Include only the cost of tuition, books, and fees. Include the full amount even if you expect to obtain some of the money from scholarships or other sources.*
12.4	12.9	**A.** Less than $200
15.3	20.3	**B.** $200 to $399
19.5	20.7	**C.** $400 to $599
17.8	15.9	**D.** $600 to $799
14.3	13.2	**E.** $800 to $999
20.7	17.1	**F.** $1000 or more
3298	3536	Weighted N
$630	$560	Median
		383. How much money do you expect you will need for living expenses in your first year of college? *Include the cost of room, board, spending money, travel, etc. Include all expenses.*
36.4	42.7	**A.** Less than $500
33.6	35.1	**B.** $500 to $999
17.4	13.5	**C.** $1000 to $1499
6.8	4.7	**D.** $1500 to $1999
3.0	2.3	**E.** $2000 to $2499
2.8	1.7	**F.** $2500 or more
3264	3490	Weighted N
$700	$600	Median

Items 384-389. What per cent of the money you will need for college do you expect to get from each of the following sources? *Choose the closest answer.*

M	F	
		384. Loans from college loan funds
71.0	78.2	**A.** 0 per cent
13.1	10.5	**B.** 20 per cent
7.6	5.5	**C.** 40 per cent
4.6	3.0	**D.** 60 per cent
2.1	1.6	**E.** 80 per cent
1.6	1.2	**F.** 100 per cent
3255	3514	Weighted N
		385. Loans from other sources (family, friends)
62.3	69.9	**A.** 0 per cent
17.7	14.2	**B.** 20 per cent
9.1	6.4	**C.** 40 per cent
5.3	3.9	**D.** 60 per cent
3.0	3.0	**E.** 80 per cent
2.5	2.6	**F.** 100 per cent
3228	3486	Weighted N
		386. Scholarships
64.1	69.9	**A.** 0 per cent
15.9	16.0	**B.** 20 per cent
8.6	7.0	**C.** 40 per cent
5.2	3.8	**D.** 60 per cent
3.4	2.0	**E.** 80 per cent
2.8	1.3	**F.** 100 per cent
3200	3460	Weighted N
		387. Parents
29.4	23.2	**A.** 0 per cent
21.2	16.5	**B.** 20 per cent
15.9	12.3	**C.** 40 per cent
14.2	15.1	**D.** 60 per cent
11.2	18.1	**E.** 80 per cent
8.1	14.8	**F.** 100 per cent
3196	3463	Weighted N
		388. Savings from part-time or summer work (while in high school or earlier)
34.1	40.7	**A.** 0 per cent
29.4	30.9	**B.** 20 per cent
15.9	11.9	**C.** 40 per cent
9.8	7.2	**D.** 60 per cent
6.2	5.6	**E.** 80 per cent
4.5	3.6	**F.** 100 per cent
3177	3435	Weighted N
		389. Part-time or summer jobs while attending college
34.0	41.9	**A.** 0 per cent
32.2	33.1	**B.** 20 per cent
15.6	11.2	**C.** 40 per cent
8.2	5.9	**D.** 60 per cent
5.1	4.2	**E.** 80 per cent
4.9	3.8	**F.** 100 per cent
3171	3428	Weighted N

Other College Plans

		390. To how many colleges have you made application?
45.5	49.4	**A.** I have not made application to any college.
24.4	28.6	**B.** One
13.2	11.9	**C.** Two
9.4	6.0	**D.** Three
4.0	2.5	**E.** Four
3.4	1.6	**F.** Five or more
3256	3587	Weighted N
		391. How far from your home is the college you expect to attend?
34.9	37.1	**A.** Within commuting distance from my home
22.7	20.3	**B.** Too far to commute, but within 200 miles
13.0	10.2	**C.** More than 200 miles, but less than 500 miles
8.9	7.1	**D.** More than 500 miles
20.4	25.3	**E.** I have no plans regarding which college I will attend.
3213	3528	Weighted N
		392. How close to your home is a college for which you are *eligible?*
55.0	58.6	**A.** Within commuting distance from my home
16.5	13.3	**B.** Too far to commute, but within 200 miles
6.4	3.8	**C.** More than 200 miles, but less than 500 miles
3.8	2.3	**D.** More than 500 miles
18.3	21.9	**E.** I don't know.
3193	3487	Weighted N

393. Where do you expect to live while attending college?

M	F		
26.4	25.3	A.	At home with my family
41.1	44.3	B.	In a dormitory at the college or university
4.8	2.8	C.	Away from home, with friends or relatives
7.7	4.1	D.	Away from home, in a room or apartment near the college or university
3.7	3.0	E.	Someplace not mentioned above
16.4	20.4	F.	I have no plans regarding where I will live while I am at college.
3180	3456		Weighted N

394. Which *one* of the following *best* describes the college you expect to attend?

M	F		
7.7	8.1	A.	A city-supported college
39.4	33.6	B.	A state-supported college
12.6	14.3	C.	A privately supported church-related college
14.5	10.7	D.	A privately supported independent college
4.4	5.8	E.	Some other type of college
21.4	27.5	F.	I have no plans regarding the type of college I will attend.
3176	3409		Weighted N

The median number of hours doing chores around the house was 4.6 hours per week for boys and 7.0 hours per week for girls. The median senior boy was 12.5 years old when he first earned money outside his own home, had held a paid job for two summers, and worked about 5.8 hours per week for pay during the school year. He was most likely to have delivered newspapers or mowed lawns. The median senior girl started to earn money outside her own home when she was about 13 years old, had been employed one summer, and worked about 1.2 hours per week for pay during the school year. She was most likely to have done baby-sitting or cleaned house to earn money.

Sources of Spending Money. About 8 per cent of the boys and 11 per cent of the girls said that they got virtually all of their spending money from a regular allowance, but over 50 per cent of the students received no money from this source. Many of the students got most of their spending money from working, from their families for specific needs, and from other unspecified sources.

Social Activities. The median senior boy reported that he first went out on a date when he was just under 14; the median senior girl had her first date when she was 14. About 5 per cent of the boys and 3 per cent of the girls reported that they had never had a date. Both boys and girls reported that they had between one and two dates per week. These were usually on weekends, we may infer from their responses. However, about 23 per cent of the boys and 14 per cent of the girls indicated that they went out 4-7 nights per week during the school year for fun and recreation. The boys and girls reported that they had "gone steady" an average of once in the last three years. However, 40 per cent of the boys and 32 per cent of the girls said that they had not "gone steady" at all in the past 3 years.

Seventeen per cent of the boys and 8 per cent of the girls reported that they had never learned to dance. Of those who did, the median boy learned at age 13 and the median girl at 12.

Health. The median twelfth-grade student seems to be very healthy. A typical boy had been sick in bed only one day in the year preceding his filling in the SIB; the median girl, only about two days. For most of the students, the longest time they had ever been in bed because of illness or an accident was one week. The median boys and girls reported that they got an average of about 8 hours' sleep per night. The typical student stated that he got to bed on weekends shortly after midnight.

Educational Experiences

About 48 per cent of the boys and 38 per cent of the girls were enrolled in a college-preparatory program in high school; 25 per cent of the boys and 19 per cent of the girls were enrolled in a general program; and 7 per cent of the boys and 37 per cent of the girls were enrolled in a commercial or business program. More than half the boys and the girls started the first grade when they were six years old,

about 4 per cent started when they were four years old or younger, and about 9 per cent of the boys and 7 per cent of the girls started when they were 7 years old or older. Ninety per cent of the boys and 93 per cent of the girls had not missed a full semester of school since starting first grade; except for promotions, about 40 per cent of the boys and 42 per cent of the girls had not changed schools. On the other hand, about 10 per cent of the boys and 9 per cent of the girls changed schools five or more times. These changes are probably attributable in large part to family changes of residence. (See items 167-169 and 224 for data on family mobility.)

Absences from school occurred rather frequently, as would be expected. About one-quarter of the girls reported that they were absent from school ten or more days in the school year beginning in September 1958 and ending in June 1959. The median number of absences during that school year was 4.4 days for the boys and 5.0 days for the girls.

Only 18 per cent of the boys and 25 per cent of the girls reported studying at home or in study periods at school for an average of 15 hours or more per week. By contrast, 27 per cent of the boys and 17 per cent of the girls reported studying for an average of 4 hours per week or less. The median twelfth-grade boy studied out of class for about 8 1/4 hours per week and the median girl for about 9 3/4 hours per week. If they had one study period per day in school, this means that boys devoted about 3 1/4 hours per week and girls about 4 3/4 hours per week to homework during their senior year in high school. College-preparatory students probably spent a good deal more time than this on their homework. But, even allowing for this fact, the medians for all twelfth-grade pupils seem much lower than most educators and laymen feel is acceptable, much less desirable.

The reactions of pupils to 26 items on studying and preparing for school work are shown in Table 5-4 in response to items 65-90. The students reported how often each of the statements applied to them on a scale running from "Almost always" to "Almost never." About 19 per cent of the boys and 9 per cent of the girls responded that the statement, "Failure to pay attention in class caused my marks to be lowered," applied to them almost always or most of the time. About 23 per cent of the boys and 11 per cent of the girls responded in these ways to the statement, "I do my assignments so quickly that I don't do my best work"; and about 36 per cent of the boys and 21 per cent of the girls responded in the same way to the statement, "I have difficulty with the mechanics of English composition."

Educators will be encouraged by the fact that 43 per cent of the boys and 48 per cent of the girls decided that the statement, "I consider a very difficult assignment a challenge to my abilities," applied to them almost always or most of the time. The statement, "I keep up to date on my assignments by doing my work every day," was reported applicable almost always or most of the time by 57 per cent of the boys and 76 per cent of the girls. Perhaps schools could profitably demand

more intensive work from students. Although, as noted above, only 18 per cent of the boys and 25 per cent of the girls reported that they studied 15 hours or more per week, 27 per cent of the boys and 32 per cent of the girls said that they almost always or most of the time did a little more than a course required. In this connection, it may be noted that the schools in the Project TALENT sample reported in 1960 that in grades 9 to 12 they expected, on the average, 1.7 hours of homework per day.[1] This would indicate that the average high school expects about 8 1/2 hours per week of study outside class from its students. It appears, therefore, that students are doing about as much homework as average schools actually expect.

The tabulations in Table 5-4 with respect to items 106-113 serve as students' reports of their marks for courses taken in the ninth grade or later. The choices for these items were set up to distinguish among pupils with very high marks or very low marks in a subject-matter field; thus, choice A represents all A's or their equivalents and choice B represents mostly A's or their equivalents. Responses to item 113 show that about 13 per cent of the boys and 17 per cent of the girls received all A's or mostly A's in all of the courses they had taken beginning with grade 9.[2] Girls consistently reported higher grades than boys in each course area. This result is consistent with the findings of other studies that show girls receiving higher school marks than boys.

Items 98-104 present data regarding the numbers of semesters of various types of courses the pupils have taken. About 27 per cent of the boys and 10 per cent of the girls reported that they had never taken a business or commercial course; 34 per cent of the boys and 82 per cent of the girls have not taken any vocational, shop, or agriculture course; 48 per cent of the boys and 41 per cent of the girls had not taken a course in foreign languages; and about 8 per cent of the boys and 14 per cent of the girls had not taken any mathematics courses other than commercial arithmetic or shop mathematics.

The data regarding foreign-language courses indicate that about 45 per cent of American high-school pupils take none. The most disturbing aspect of the data is that about 20 per cent of the pupils take

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[1] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Orr, D. B.; and Goldberg, I. Studies of the American High School. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 226. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1962. Table 2-5, pp. 2-9.

[2] Instructions to pupils to skip an item if they had not taken any course in that area accounts for a smaller number of cases in foreign languages, vocational courses, and business or commercial courses than in other subject-matter areas.

one or two semesters of a foreign language. So little training in a foreign language can be expected to leave American pupils with almost nothing to show for their efforts. If a high school is to offer training in a foreign language, it should offer four years of training and require that students who start it should expect to complete at least three years' training in it.[1] This implies that only pupils capable of succeeding reasonably well be allowed to start a foreign language in high school. Language-aptitude tests make this type of prediction moderately successful.

Educational Plans and Aspirations

The educational aspirations of twelfth-grade students are shown in SIB items 210, 237, 297-332, 337, 338, and 390-394. Some highlights of their plans for college are shown in the top row of Table 5-5. This table also provides data for comparison with results of the Project TALENT follow-up studies and with studies conducted by the Bureau of the Census, the National Science Foundation, and the U. S. Office of Education. These data show that about 53 per cent of the boys and 46 per cent of the girls were planning to attend college immediately after graduation from high school, that about 73 per cent of the boys and 58 per cent of the girls were planning to attend college eventually, but that only about 53 per cent of the boys and 33 per cent of the girls expected to graduate from college. By comparison, the figures obtained by the Bureau of the Census for plans of high-school seniors in October 1959 based on a household survey showed that 56 per cent of the boys and 49 per cent of the girls were planning to attend college. The Bureau-of-Census figures may be higher than those obtained by Project TALENT because of the fact that the Bureau obtained most of its data from the students' parents rather than from the students themselves.

Estimates of college attendance from the Project TALENT follow-up questionnaires indicate that 49 per cent of the boys and 35 per cent of the girls actually attended college immediately after their graduation in June 1960. These figures are similar to those found by the Bureau of the Census for 1960 high-school graduates, except that the percentage for the Project TALENT boys is higher than that for the boys in the Bureau-of-the-Census study and the percentage for the Project TALENT girls is lower than that obtained by the Bureau-of-the-Census study. In both studies, the percentage of high-school graduates who attended college approximately one year following graduation from high school was somewhat smaller than the percentage of the same group that had planned as seniors to attend college. However, a study by the National Science Foundation in 1956 showed that a considerably larger percentage

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[1] See Conant, J. B. The American High School Today. New York: McGraw-Hill, 1959, p. 69.

Also, Childers, J. W. PMLA, Foreign Language Offerings and Enrollments in Public Secondary Schools, Fall 1960. New York: Modern Language Association of America, 1962, 77, 4, 2, pp. 1-19.

TABLE 5-5

Percentages of Designated Groups Planning to Attend College and to Graduate, and Percentages that Reached or Expected to Reach These Objectives

Groups	Attend College Immediately After High School		Attend College Eventually After High School		Graduate From College	
	Males	Females	Males	Females	Males	Females
	Percentage					
Project TALENT seniors of 1960 who planned to:[a]	53.4	45.6	72.6	58.5	52.6	33.0
Project TALENT graduates of 1960 who actually did:[b]	49.3	35.4	---	---	---	---
Data from Bureau of the Census on high-school graduates of 1950 who planned to:[c]	56.3	49.2	---	---	---	---
Data from Bureau of the Census on high-school graduates of 1959 who actually did:[c]	46.0	37.5	---	---	---	---
Data from National Science Foundation on high-school graduates of 1956 who:[d]	41.0	37.0	56.0	36.0	---	---
Projections for high-school graduates of 1960:[e]	---	---	---	---	33.0	19.9

a/Data based on 1960 seniors. Project TALENT Student Information Blank, items 303, 304.

b/Data based on 1960 high-school graduates. See Chapter 10, Results of the Twelfth-Grade Follow-up Study, follow-up questionnaire item 38.

c/Data based upon college plans in 1959 and college attendance in 1960 for high-school graduates in 1960. U.S. Bureau of the Census. Farm Population. Factors Related to College Attendance of Farm and Nonfarm High-School Graduates: 1960. Series Census--ERS P-27, No. 32. Washington, D. C: Government Printing Office, 1962. Table 5, p. 14.

d/1. Immediate entrants: ratios of immediate college entrants to high-school graduates, a national estimate.

2. Eventual entrants: ratios of college entrants of 1956-57. National Science Foundation. The Duration of Formal Education for High-Ability Youth. NSF 61-63. Washington, D. C.: National Science Foundation. Table 5, p. 15; Table 7, p. 19.

e/Ratios tabulated from projections of earned bachelor's and first professional degrees for 1963-64, and of high-school graduates for 1959-60. From unpublished data available in the Office of Education, U.S. Department of Health, Education, and Welfare. May 16, 1963, and January 21, 1964.

of high-school graduates attend college eventually than attend immediately, particularly among boys. Data from this study, shown in the next-to-the-last row in Table 5-5, indicate that 56 per cent of the boys who graduate from high school attend college eventually as compared with only 41 per cent who attend immediately. The bottom row in Table 5-5 shows estimates derived from data provided by the U. S. Office of Education of the percentage of high-school graduates of 1960 who may be expected to obtain bachelor's or first professional degrees. It can be seen at once that the percentage of Project TALENT seniors who expected to graduate from college is considerably greater than the projections made by the Office of Education.

Item 210 in Table 5-4 shows the seniors' choices of college fields of study. For boys, the most popular fields were engineering, chosen by 17 per cent, and business administration, chosen by 10 per cent. The most popular fields for girls were education, business administration, and nursing, chosen by 13, 11, and 9 per cent, respectively. The percentages shown in Table 5-4 for item 210 are based on all seniors who answered the question, including those who did not plan to attend college. Analogous data for only seniors who planned to attend college (namely, those marking choices B.-V. in item 210) are shown in the two rightmost columns of Table 5-6. The order of popularity for the more popular fields is about the same in both tabulations. College deans and planning committees may find these data of value in forecasting departmental enrollments and in making long-term plans for faculty appointments.

The U. S. Office of Education in 1963 provided data on degrees conferred in 1960-1961 that are interesting to compare with those pertaining to the Project TALENT seniors' plans for college major fields. Table 5-6 includes percentages of earned degrees by field based on these data. The comparison shows that the percentage of Project TALENT male seniors planning to major in engineering in 1960 was larger than the percentage of males getting degrees in engineering in that year. Conversely, the percentage of Project TALENT male seniors planning to major in social studies, including psychology, was much smaller than the percentage of males getting degrees in that field in 1960.

The percentage of women in the Project TALENT sample who indicated they planned to major in education was 20; in 1960, 47 per cent of the earned bachelor's and first professional degrees conferred on women were in education. A similar trend in the percentages was noted for the field of social science, including psychology. Comparison of the percentage of girls in the Project TALENT sample who were planning to major in business and commerce in college and the percentage of all women who obtained bachelor's degrees in 1960 who received them in business and commerce shows the former much greater than the latter.

Although fields of study in college and occupational fields are sometimes not closely linked -- some fields require a college degree while others may be entered without a college degree -- comparison of the seniors' college-field choices and their occupational-field choices

TABLE 5-6

Percentage of Earned Degrees Conferred (Bachelor's and First Professional) to Men and Women by Field, 1960-61, and of College-Field Choices of Project TALENT Twelfth Graders

College Field[a]	Earned Bachelor's and First Professional Degrees Conferred 1960-61[b]		College-Field Choices of Project TALENT Twelfth Graders[c]	
	Males	Females	Males	Females
	Percentage			
Agriculture	1.9	0.1	3.7	0.1
Biological sciences	5.3	3.0	2.5	2.2
Business and commerce	20.0	2.7	14.2	16.9
Education	11.5	47.0	5.4	20.0
Engineering	15.4	0.1	22.9	0.2
English, journalism, geography, philosophy	6.0	10.7	7.7	5.3
Fine and applied arts	2.6	5.0	2.9	5.4
Foreign languages and literature	1.1	2.9	0.7	2.5
Health professions	1.2	6.2	6.4	16.1
Mathematics	4.2	2.6	4.0	2.1
Physical sciences	6.0	1.4	6.4	1.6
Social sciences, including psychology	18.7	13.2	2.5	5.2
Religion	1.5	0.8	1.4	0.2
Home economics	0.0	3.0	0.1	3.6
All other fields	4.5	1.4	10.4	10.5
No plans	*	*	8.9	8.3
Total	99.9	100.1	100.1	100.2

[a] See Table 5-4, SIB item 210. Certain options in this item were combined to form three of the college fields in Table 5-6: "Health professions" include options F (pre-medical), G (pre-dental), and Q (nursing). "English," etc., includes H (pre-law), N (other liberal arts), and T (journalism). "Social sciences," etc., include K (sociology or psychology), and L (political science or economics).

[b] Percentages were calculated from frequencies presented by Tolliver, W. E., in Earned Degrees Conferred: 1960-1961, Bachelors and Higher Degrees. Health, Education and Welfare, OE-54013-61. Circular 721. Washington: Government Printing Office, 1963. Table 5, p. 10.

[c] The seniors who were not planning to attend college (SIB 210, option A) are not included in this distribution.

* Does not apply to Office of Education categories.

is informative. The percentage of boys choosing engineering as a major field was 17 and as an occupational field, 18. The percentages of both sexes choosing education as a college field (4 for the boys and almost 13 for the girls) were smaller than the corresponding percentages of those planning to teach (more than 6 for the boys and almost 17 for the girls). Without doubt, some of the students planning to major in the liberal-arts fields planned to teach their major subjects after graduation. Other comparisons between choice of a college field and an occupational field are difficult to make with confidence.

About 60 per cent of the boys and 41 per cent of the girls said that their parents wanted them to have at least a bachelor's degree; approximately 50 per cent of the boys and 41 per cent of the girls indicated that most of their friends were planning to obtain at least the same type of college degree.

About 46 per cent of the boys and 49 per cent of the girls who thought that they might attend college had not made application for admission to a college at the time they responded in March and April of 1960 to the Student Information Blank. This is a little surprising, as it would have been necessary to have submitted an application by that time to have been considered for admission by many colleges in the fall semester. Perhaps of interest to school counselors and college-admission officers is the fact that approximately 30 per cent of the boys and 22 per cent of the girls who responded to the question had applied to two or more colleges and about 7 per cent of the boys and 4 per cent of the girls had applied to four or more colleges. About 35 per cent of the boys and 37 per cent of the girls who were considering college expected to attend a college within commuting distance of their homes, but only 26 per cent of the boys and 25 per cent of the girls expected to live at home while attending college.

Plans for Financing College Attendance

Items 382 and 383 in Table 5-4 show the amount of money that the Project TALENT seniors who thought that they might go to college estimated that they would need for tuition, books, and fees as well as for living expenses, including the cost of room, board, spending money, travel, etc. The data show that about 12 per cent of the boys and 13 per cent of the girls thought that they would need less than $200 for college expenses, and 21 per cent of the boys and 17 per cent of the girls thought they would need $1,000 or more for college expenses during their freshman year. The median amount specified by the boys was $630 and by the girls, $560. About 36 per cent of the boys and 43 per cent of the girls thought that they would need less than $500 for living expenses for their first year in college. About 13 per cent of the boys and 9 per cent of the girls thought that they would need $1,500 or more for living expenses in their first year. The median amount estimated for living expenses was $700 for the boys and $600 for the girls.

Items 384-389 in Table 5-4 show the seniors' reports on the sources from which they expected to obtain financial support while in college. It is of interest to see that only 8 per cent of the boys and about 15 per cent of the girls expected to obtain virtually all of their funds from their parents; approximately 34 per cent of the boys and 48 per cent of the girls expected to obtain more than half of their college money from their parents. On the other hand, about 29 per cent of the boys and about 23 per cent of the girls expected to obtain almost no financial support from their parents while in college. The results also show that about 36 per cent of the boys and 30 per cent of the girls expected to get some sort of support from scholarships; about 66 per cent of the boys and 59 per cent of the girls were planning to use money that they had saved from part-time or summer work while they were in high school. Close to 66 per cent of the boys and 58 per cent of the girls expected to support themselves, at least partially, through part-time or summer jobs during their college years. Approximately 29 per cent of the boys and 22 per cent of the girls thought that they would obtain loans from college funds.

Additional data about the costs of college and sources of funds for meeting expenses of college are presented in items 375-381 in Table 5-4. In Chapter 10 are the students' reports of expenses during their first year of college and the sources of income that they had.

Career Plans and Aspirations

The seniors' career plans and aspirations are shown in items 211 and 212. More boys expected to enter engineering than any other field -- almost 18 per cent of those responding. About the same percentage of boys rated engineering as their most preferred occupation. Seven per cent of the boys planned to be skilled workers and about 6 per cent preferred that. About 6 per cent expected to be school teachers and about 5 per cent preferred that; approximately 4 per cent planned to be officers in the Armed Forces and nearly 5 per cent preferred that.

About 30 per cent of the girls reported that they planned to become secretaries, office clerks, or typists; and almost 23 per cent of them preferred these to other occupations. Other occupations attractive to girls were nursing, elementary-school teaching, high-school teaching, beauty-shop work, and accounting or bookkeeping. About 10 per cent of the girls indicated that they expected to be housewives.

There is evidence that high-school seniors are unrealistic in their career plans. Fully 48 per cent of the boys and 40 per cent of the girls were planning a career in a professional or technical field. Yet, the Bureau of the Census reports that only about 15 per cent of employed males and 17 per cent of employed females between the ages of 25 and 29 are in professional and technical occupations. Despite the fact that the percentage of workers in professional occupations increased more than 45 per cent between 1950 and 1960, it does not

appear likely that there will be enough openings for professional workers to accommodate all of those who want to enter them.

Additional information on occupational choices and values is shown in items 347-361. Of interest to counselors is the fact that about 50 per cent of both sexes said that they decided upon their present choice of an occupation in the eleventh or twelfth grade; but 32 per cent of the boys and 21 per cent of the girls stated their present choice of an occupation was fairly indefinite, very indefinite, or completely undecided.

Other Plans and Aspirations

Financial Plans. Items 239-240 and 363-374 provide interesting information about the financial plans of high-school seniors. Twenty years after their graduation, the median annual income expected by the boys was about $11,700 and by the girls, about $7,000. The boys' expectation seems unreasonably high until one recognizes that if the purchasing power of the dollar decreases an average of 2 per cent per year, the boys were expecting a purchasing power in terms of 1960 dollars of about $8,340 per year. The median annual income in 1980 of men who are at least high-school graduates may very well be close to $11,700. It should be noted, however, that the median income in 1959, as indicated by U. S. Census data,[1] was $5,437 for males and $2,186 for females with four years of high-school education and $7,646 for males and $3,751 for females who had completed at least four years of college.

In response to another item (240), the boys indicated that the smallest median income that they would be satisfied with 20 years after high-school graduation was about $8,800 per year. The girls would be satisfied with a median income of about $5,500 per year. It is interesting to compare these data with those obtained from items 363 and 364. About 16 per cent of the boys and 8 per cent of the girls hoped to be wealthy or very wealthy in their lifetimes but only 7 per cent of the boys and 2 per cent of the girls expected to be. A large majority of both boys and girls hoped to be comfortably well off financially or well-to-do; 54 per cent of the boys and 68 per cent of the girls expected to be comfortable.

Ninety-six per cent of the boys expected to have life insurance ten years after graduation and 98 per cent of the girls expected their husbands to have it. Both boys and girls showed a strong desire to save money. About 12 per cent of them subscribed to the statement, "I save every cent I can, even if I have to do without some things I need," while only about 6 per cent of them said that they "save little or

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[1] U. S. Bureau of the Census. U. S. Census of Population: 1960. U. S. Summary, Detailed Characteristics. Final Report PC(1)-1D. Washington: Government Printing Office, 1963. Table 223, pp. 1-590.

nothing." Their future plans were even more definite; they expected to have a savings account ten years after graduation and 73 per cent of the boys and 66 per cent of the girls expected to invest at least a little in stocks and bonds. About 51 per cent of the boys and 33 per cent of the girls expected to make investments in real estate exclusive of their own homes. After they have started to make a living, the students expected to pay cash for purchases except for large items such as a house and a car.

Plans for Marriage and a Family. The median boy expected to get married at age 23 and the median girl at 21; 93 per cent of the boys and 97 per cent of the girls expected to have children. The modal number of children expected is three for both boys and girls, but 7 per cent of the boys and 13 per cent of the girls expected to have five or more.

Family and Home

Occupations of Parents. The diverse family backgrounds from which American high-school students come are shown clearly by their responses to SIB items 130 to 209 and 213 to 226. Approximately 86 per cent of the boys and 85 per cent of the girls reported that their father provided the family's main source of support; however, 9 per cent of the boys and 10 per cent of the girls reported that their mother was the breadwinner. When asked "Who are the heads of the house?" about 81 per cent of both the boys and the girls said their mother and father; 8 per cent said their mother only; and 2 per cent of the boys and 1 per cent of the girls said their father only.

Table 5-7 summarizes in the two rightmost columns the data supplied by the students about their fathers' occupations. About 9 per cent of the boys and of the girls reported that their father was a professional or technical worker. About 19 per cent of the boys and 18 per cent of the girls reported that their father was a manager, a proprietor, or an official of some sort; and about 8 per cent of the boys and 7 per cent of the girls reported that their father was a clerk or salesman of some kind. Somewhat larger percentages of the pupils reported that their fathers were in skilled and semiskilled jobs. Approximately 27.5 per cent of the fathers fell into these categories. The remaining category of blue-collar workers (labor, household, protective, and service jobs) accounted for about 19 per cent of the fathers' occupations. Approximately 11 per cent of the fathers were categorized as farmers, approximately 9 per cent of these being self-employed farmers or farm managers.

For comparative purposes, Table 5-7 includes a categorization of males age 35-59 employed in the labor force. These data were taken from the 1960 U. S. Census. This age range was used in order to obtain a group roughly comparable in that respect to the fathers of the children reporting in the Project TALENT sample. It will be noted that percentages for professional and technical workers and for all white-collar workers are quite similar to the Project TALENT data. However, the

TABLE 5-7

Percentage of Males in U. S. Employed Labor Force, Ages 35-59, and of Fathers of Project TALENT Twelfth Graders in Various Occupational Groups

Occupational Group[a]	Males Employed in Labor Force, Ages 35-59[b]	Fathers of Project TALENT Twelfth Graders	
		Males	Females
	Percentage		
White collar			
Professional and technical	9.9	9.1	9.0
Manager, official, or proprietor	13.2	18.8	18.0
Clerical and sales	12.4	7.5	7.0
Subtotal	35.5	35.4	34.0
Blue collar			
Skilled and semi-skilled	41.2	27.6	27.4
Labor, household, protective, and service	11.6	18.8	20.2
Subtotal	52.8	46.4	47.6
Farming			
Farmers and farm managers	6.0	9.5	8.2
Farm laborers and foremen	1.8	2.3	2.4
Subtotal	7.8	11.8	10.6
Not reported or don't know	4.0	6.3	7.7
Total	100.1	99.9	99.9

a/See Table 5-4, item 206 for the Project TALENT classification. The options for item 206 were combined as follows: professional and technical, options O and P; manager, official, and proprietor, options L, M, and N; clerical and sales, options J and K; skilled and semi-skilled, options H and I; labor, household, protective, and service, options D, E, F, and G; farmers and farm managers, option A; farm laborers and foremen, options B and C.

The data from the Bureau of the Census were taken from the following occupational groups; professional, technical, and kindred workers; managers, officials, and proprietors, except farm; clerical and kindred workers and sales workers (combined); craftsmen, foremen, and kindred workers and operatives and kindred workers (combined); laborers, excluding farm and mine, private household workers, and service workers; farmers and farm managers; farm laborers and farm foremen.

b/U. S. Bureau of the Census, U. S. Census of Population: 1960. Detailed Characteristics. U. S. Summary. Final Report PC (1)-1D. Government Printing Office, Washington, D. C. 1963. Table 204, p. 1-540.

percentages obtained from the Project TALENT responses run somewhat higher than those presented by the Bureau of the Census for managers, officials, or proprietors; labor, household, protective and service workers; all farm workers; and the unknown group. For some other occupational groups, the reverse tendency is noted. The differences can probably be attributed to many causes. Among others, the Census data include the occupations of single men and married men who do not have children of high-school age. In addition, it is well known that dropout from school before grade 12 is more likely to occur among students who come from families in which the father is in a less skilled occupation than average.

Although the students were somewhat inconsistent in reporting the percentage of their mothers who have worked for pay in the 3 years preceding the spring of 1960 (cf. items 134 and 208), the data indicate that the percentage was large. The responses to item 134 show that the mothers of about 28 per cent of the pupils have engaged in regular full-time work and that another 13 per cent have mothers who have done regular part-time work. Another 24 per cent have done part-time work either regularly or occasionally. The percentages are in fairly good agreement with data provided by the U. S. Census about participation of married women age 35-59 in the labor force. The Census data show that about 41 per cent of women in this category were in the labor force.[1]

Table 5-8 shows the broad occupational classifications into which the mothers of boys and of girls in the Project TALENT sample of twelfth-grade pupils fall and the occupations of females employed in the labor force, ages 35-59. The data are similar, one difference being that a smaller percentage of the mothers of Project TALENT twelfth-graders were in white-collar work than was true of this group of women in the labor force.

Education of Parents. About 18 per cent of the boys and 20 per cent of the girls reported that their fathers had not graduated from high school; 11 per cent of the students stated that their mothers had not graduated from high school. On the other hand, approximately 20 per cent of the students reported that their fathers had graduated from a four-year college. Many of these fathers had taken post-graduate work. About 21 per cent of the pupils reported that their mothers had at least graduated from a four-year college.

These data indicate in general a rather high level of education among the parents of the Project TALENT students. Table 5-9 compares the educational levels for males and females between the ages of 35 and 59 in the national population with the educational levels of the parents of Project TALENT twelfth-graders. A glance at the table shows that the latter reported a far higher level of education among their parents than is shown for the general population age 35-59. This may be

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[1] Ibid. Table 196, p. 1-501.

TABLE 5-8

Percentage of Females in U. S. Employed Labor Force, Ages 35-59, and of Employed Mothers of Project TALENT Twelfth Graders in Various Occupational Groups

Occupational Group[a]	Females Employed in Labor Force, Ages 35-59[b]	Employed Mothers of Project TALENT Twelfth Graders[c]	
		Males	Females
	Percentage		
White collar			
Professional and technical	13.0	12.4	12.8
Manager, official, or proprietor	4.7	8.2	7.7
Clerical and sales	34.8	27.2	27.9
Subtotal	52.5	47.8	48.4
Blue collar			
Skilled and semi-skilled	18.8	15.3	16.8
Labor, household, protective, and service	21.8	23.9	24.2
Subtotal	40.6	39.2	41.0
Farming			
Farmers and farm managers	0.6	1.0	0.7
Farm laborers and foremen	1.1	0.8	0.6
Subtotal	1.7	1.8	1.3
Not reported or don't know	5.1	11.2	9.4
Total	99.9	100.0	100.1

a/See Table 5-4, item 208 for the Project TALENT classification. The options for item 206 were combined as follows: professional and technical, options O and P; manager, official and proprietor, options L, M, and N; clerical and sales, options J and K; skilled and semi-skilled, options H and I; labor, household, protective, and service, options D, E, F, and G; farmers and farm managers, option A; farm laborers and foremen, options B and C.

The data from the Bureau of the Census were taken from the following occupational groups; professional, technical, and kindred workers; managers, officials, and proprietors, except farm; clerical and kindred workers and sales workers (combined); craftsmen, foremen, and kindred workers and operatives and kindred workers (combined); laborers, excluding farm and mine, private household workers, and service workers; farmers and farm managers; farm laborers and farm foremen.

b/Ibid., Table 204, p. 1-542.

c/SIB 208, option A, housewife only is not included in this distribution.

TABLE 5-9

Educational Level of Males and Females in the U.S., Ages 35-59, and of Fathers and Mothers of Project TALENT Twelfth Graders

Educational Level[a]	U.S., Ages 35-59[b]		Project TALENT Twelfth Graders			
			Father's Education		Mother's Education	
	Males	Females	Males	Females	Males	Females
	Percentage					
Completed four years of college or have a college degree	9.6	6.1	20.6	19.7	20.7	20.5
Completed some college	8.6	9.3	44.4	43.3	55.5	54.7
Graduated from high school	22.5	29.0	15.8	16.5	12.2	13.4
Did not complete high school	59.3	55.6	18.1	19.5	10.9	10.8
Don't know	*	*	1.0	1.1	0.6	0.7
Total	100.0	100.0	99.9	100.1	99.9	100.1

a/See Table 5-4, items 218 and 219, for the Project TALENT classification. The options for items 218 and 219 were combined as follows: college degree, options G, H, I, and J; some college, options E and F; high-school graduate, option D; did not complete high school, options A, B, and C.

The data from the Bureau of the Census were taken from information on highest grade completed and combined in the following categories: college degree, four or more years of college; some college, one but less than four years of college; high-school graduate, four years of high school; did not complete high school, no schooling, one through eight years of elementary school, and one through three years of high school.

b/U.S. Bureau of the Census. U.S. Census of the Population: 1960. Detailed Characteristics. U.S. Summary. Final Report. PC (1)-1D. Government Printing Office, Washington, D. C. 1963. Table 173, p. 1-405.

*Not included as a category in the Bureau of the Census analysis.

accounted for by the fact that the twelfth-graders constituted a selected sample of all boys and girls of their ages. In general, the higher one goes on the educational ladder the higher is the educational level of the parents of the student.

Family Housing. About three-fourths of the students stated that they were living in a one-family house and that their family owned it or was buying it. The median of the students' estimates of the value of the house owned by the family was about $13,500. Among those living in rented houses or apartments, the median rental was estimated as $65 per month. In comparison, the median estimated market value of single owner-occupied housing units in 1960 was $11,900 and the median monthly contract rent for renter-occupied units in 1960 was $58.[1]

The median number of rooms in the home was reported by the students to have been about seven or eight, including bathrooms, enclosed porches, etc., as rooms. In the home, the median number of persons was five.

Family Finances. The median family income in 1959 was estimated by boys to be about $7,200; by girls to be about $6,800. It should be noted that 23 per cent of the boys and 42 per cent of the girls reported that they could not make this estimate. For several reasons, the median estimate of $7,000 from all students may not be accurate. However, it is not far above the median given in U.S. Census data pertaining to families in 1959 with children under 18 years of age. When the head of the family was 35-44 years of age and had children under 18 years of age living in the home, the median family income was $6,667. For families in which both the husband and wife worked, the median family income in 1959 was $6,860.[2] Seniors in high school come from families above the average with respect to educational status and income.

Approximately 70 per cent of the students stated that their families' incomes were derived from salaries or wages. In only about one-fifth of the families were the incomes reported as coming mostly from professional fees or business profits.

It is interesting to note that close to 70 per cent of the students felt that their families were in comfortable financial circumstances. Less than 3 per cent of the students reported that their families were

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[1] U.S. Bureau of the Census. U.S. Census of Housing, 1960. Housing Characteristics. Advance Reports. HC(A2)-1. Washington: U.S. Department of Commerce, 1962.

[2] Ibid. Table 224, p. 1-594; Table 229, p. 1-608.

"barely able to make a living." An interesting contrast is that about 40 per cent of all the students stated that their families' incomes in 1959 were less than $6,000, but only about 18 per cent of the students indicated that their families were in less-than-comfortable circumstances.

Family Possessions. Some interesting data about the possessions of the students' families may be briefly summarized in the following statements. The modal home contains between 26-100 books; about three-quarters of the families subscribed to one or more of the following magazines: Reader's Digest, Coronet, or the Saturday Evening Post. A typical home has a telephone, television, radio, and phonograph. It also has some sports equipment and a collection of more than 25 hand tools. The members of the modal family own collectively one car; but according to the boys, 55 per cent of the families own two cars or more, and according to the girls, 39 per cent of the families own two cars or more. The median age of the family's newest car was reported as 3 years.

Student Background and Aspirations in Relation to Aptitude Level

As information was desired regarding the backgrounds and aspirations of the academically talented students, a measure of general academic aptitude (C-013) was used to divide the sample into tenths. The entire sample of students tested by Project TALENT in 1960 has been divided into subsamples. One of these, Subsample 0, was used in tabulating the responses of twelfth-grade students to 394 items in the Student Information Blank by aptitude level. Table 5-10 shows how Subsample 0 compares with the entire sample of twelfth-grade students with respect to the distributions of students' responses to selected background characteristics. It will be noted that only small differences are shown in Table 5-10. Consequently, tabulations based on Subsample 0 may be regarded as reasonably representative of tabulations based on the entire sample.

Table 5-11[1] presents the tabulations by aptitude level of 13 selected items. Inspection of the data in Table 5-11 pertaining to item 91 confirms the well-known fact that enrollment in college-preparatory curricula in high school is closely related to general aptitude level. When enrollment in separate courses is tabulated, it naturally follows that courses in the sciences, in mathematics, and in languages (especially foreign languages) are taken in greater number by students of high aptitude than of low aptitude.

By and large, high-aptitude students started school earlier than low-aptitude students, have missed less time in school, and get higher marks. Differences between high-aptitude and low-aptitude students are smaller with respect to grades than with respect to achievement and

[1] See Appendix E for the distributions of 36 of the SIB items.

TABLE 5-10

Percentage Distributions of Selected Background Characteristics for Two Samples of Project TALENT Senior Males and Females

SIB Item	Percentage			
	Sample A-100.0[a]		Subsample 0[a]	
	Males	Females	Males	Females
91. High-school curriculum				
A. General	24.8	18.9	25.6	19.9
B. College preparatory	48.2	37.8	44.0	31.3
C. Commercial or business	7.1	37.1	7.5	40.3
D. Vocational	12.4	3.3	15.1	4.4
E. Agricultural	4.1	0.3	4.6	0.4
F. Other	3.3	2.6	3.3	3.7
Total	99.9	100.0	100.1	100.0
206. Father's occupation				
J-P. White collar	35.4	34.0	1.2	28.8
D-I. Blue collar	46.4	47.6	48.7	50.9
A-C. All farm	11.8	10.6	13.8	12.7
Q. Don't know	6.3	7.7	6.3	7.8
Total	99.9	99.9	100.0	100.2
304. Greatest amount of education expected				
A. Don't expect to finish high school	1.3	0.7	1.8	1.0
B. Expect only to graduate from high school	22.1	29.1	26.7	33.1
C. Expect to obtain vocational, business, or junior-college training	14.8	26.6	15.2	28.1
D. Expect some regular college training	9.1	10.6	9.8	9.7
E. Expect to graduate from regular four-year college	31.1	23.6	27.8	20.5
F. Expect to study for advanced degree	21.5	9.4	18.7	7.7
Total	99.9	100.0	100.0	100.1

a/See Appendix A-1 for a description of these samples. Subsample 0 is a ten-per-cent sample.

TABLE 5-11

Selected SIB Background Data for Twelfth-Grade Boys and Girls in Ten Aptitude Groups
(Subsample 0)[a]

Column Number	1	2	3	4	5	6	7	8
SIB Item	91. High-School Curriculum		94. Age Started First Grade		97. Hours of Study Each Week		113. Grades in All Courses	
SIB Option	College Prep. (B)	Other (A, C-F)	Six or Younger (A-C)	Seven Years or Older (D-F)	Nine or Less (A-C)	Ten or More Hours (D-F)	A's, Mostly A's and B's (A-C)	Mostly B's, C's, or Lower (D-F)
Aptitude Percentile Rank[b]	Percentage in Each Aptitude Group							
				Boys				
90.0-99.9	95.2	4.8	97.2	2.8	38.0	62.0	78.7	21.3
80.0-89.9	76.3	23.7	95.6	4.4	51.4	48.6	46.5	53.5
70.0-79.9	71.0	29.0	95.3	4.7	54.8	45.2	34.2	65.8
60.0-69.9	48.8	51.2	92.9	7.1	56.9	43.1	32.3	67.7
50.0-59.9	45.1	54.9	91.2	8.8	66.8	33.2	31.3	68.7
40.0-49.9	29.1	70.9	91.6	8.4	63.5	36.5	28.9	71.1
30.0-39.9	25.7	74.3	86.8	13.2	75.7	24.3	31.1	68.9
20.0-29.9	18.3	81.7	86.4	13.6	66.3	33.7	29.2	70.8
10.0-19.9	18.3	81.7	83.8	16.2	67.7	32.3	36.5	63.5
0.0- 9.9	12.2	87.8	82.3	17.7	72.0	28.0	37.6	62.4
				Girls				
90.0-99.9	83.7	16.3	94.6	5.4	29.3	70.7	90.3	9.7
80.0-89.9	61.9	38.1	95.1	4.9	40.6	59.4	74.7	25.3
70.0-79.9	40.2	59.8	95.0	5.0	46.7	53.3	58.7	41.3
60.0-69.9	30.0	70.0	94.2	5.8	57.0	43.0	52.9	47.1
50.0-59.9	24.0	76.0	92.5	7.5	47.5	52.5	47.4	52.6
40.0-49.9	15.9	84.1	89.6	10.4	58.8	41.2	37.0	63.0
30.0-39.9	17.2	82.8	83.4	16.6	46.9	53.1	38.1	61.9
20.0-29.9	12.8	87.2	89.1	10.9	66.2	33.8	32.4	67.6
10.0-19.9	13.3	86.7	88.7	11.3	63.0	37.0	36.5	63.5
0.0- 9.9	13.6	86.4	85.0	15.0	67.6	32.4	44.6	55.4

[a] A 10-per-cent subsample. See Appendix A-1 for a description of this sample.

Note: The detailed distributions and weighted N's for these items, with the exception of 174 and 337, are presented in Appendix E.

[b] Based on composite C-013. (See Appendix B-2.)

TABLE 5-11 (continued)

Column Number	9	10	11	12	13	14	15	16
SIB Item	174. Family Finances		206. Father's Occupation				239. Earnings Expected-20yrs.	
SIB Option	Have Necessities or Less (A, B)	Comfortable to Wealthy (C-F)	White Collar (J-P)	Blue Collar (D-I)	Farming (A-C)	Don't Know (Q)	Under $10,000 Annually (A-D)	$10,000 or More Annually (E-K)
Aptitude Percentile Rank[b]	Percentage in Each Aptitude Group							
				Boys				
90.0-99.9	13.4	86.7	57.4	32.8	7.6	2.3	22.4	77.6
80.0-89.9	12.2	87.7	45.4	43.2	7.8	3.6	27.8	72.2
70.0-79.9	15.3	84.7	44.0	41.9	9.9	4.1	38.4	61.6
60.0-69.9	17.8	82.2	30.1	55.4	10.8	3.7	36.2	63.8
50.0-59.9	20.7	79.4	27.7	52.9	13.4	6.2	40.0	60.0
40.0-49.9	19.2	80.9	29.1	49.4	16.2	5.3	38.6	61.4
30.0-39.9	20.8	79.3	20.8	53.1	19.3	6.8	51.0	49.0
20.0-29.9	23.9	76.1	19.3	54.0	17.9	8.9	52.1	47.9
10.0-19.9	21.3	78.7	22.1	51.2	15.4	11.0	45.2	54.8
0.0- 9.9	21.1	78.8	15.8	53.4	19.8	11.1	50.9	49.1
				Girls				
90.0-99.9	16.0	83.9	55.0	35.2	5.6	4.2	71.3	28.7
80.0-89.9	17.2	82.8	41.9	42.5	10.8	4.8	74.6	25.4
70.0-79.9	19.3	80.7	36.3	44.7	16.5	2.3	79.4	20.6
60.0-69.9	17.3	80.7	31.5	50.4	12.3	5.8	76.1	23.9
50.0-59.9	16.2	83.8	26.4	55.7	12.6	5.5	73.9	26.1
40.0-49.9	18.8	81.3	21.4	53.3	13.6	11.7	71.9	28.1
30.0-39.9	20.1	79.8	21.5	62.2	8.8	7.6	68.2	31.8
20.0-29.9	24.7	75.2	19.6	57.6	12.3	10.3	73.6	26.4
10.0-19.9	21.1	78.8	16.1	54.3	14.9	14.6	71.2	28.8
0.0- 9.9	24.7	75.3	17.2	52.4	19.3	11.4	57.4	42.6

TABLE 5-11 (continued)

Column Number	17	18	19	20	21	22	23	24
SIB Item	218. Father's Education				219. Mother's Education			
SIB Option	College Grad. or Higher (G-J)	High School & Some Col. (D-F)	Not a High-School Grad. (A-C)	Don't Know (K)	College Grad. or Higher (G-J)	High School & Some Col. (D-F)	Not a High-School Grad. (A-C)	Don't Know (K)
Aptitude Percentile Rank[b]	Percentage in Each Aptitude Group							
				Boys				
90.0-99.9	27.8	42.8	28.1	1.3	16.9	59.7	21.6	2.0
80.0-89.9	17.5	41.1	36.6	4.8	13.6	54.4	29.4	2.7
70.0-79.9	13.9	41.0	41.0	4.0	9.7	54.6	33.0	2.7
60.0-69.9	9.3	35.7	47.9	7.1	9.4	46.1	41.7	2.7
50.0-59.9	7.3	36.3	49.4	6.8	8.8	48.0	39.3	3.9
40.0-49.9	6.6	33.4	53.4	6.7	7.9	42.2	42.9	7.0
30.0-39.9	4.3	30.8	53.7	11.4	3.4	41.7	43.5	11.5
20.0-29.9	5.3	31.2	52.6	10.9	6.7	37.5	46.6	9.3
10.0-19.9	6.3	21.6	60.6	11.6	5.9	31.6	52.5	10.0
0.0- 9.9	6.2	24.6	57.0	12.2	4.6	35.0	48.2	12.2
				Girls				
90.0-99.9	26.3	38.1	34.3	1.4	19.5	52.5	26.4	1.5
80.0-89.9	16.3	36.7	43.1	4.0	8.8	49.7	40.2	1.4
70.0-79.9	12.5	36.8	44.2	6.4	10.9	45.0	40.9	3.4
60.0-69.9	9.3	32.7	49.1	8.8	5.0	49.2	40.4	5.4
50.0-59.9	7.8	33.7	50.4	8.3	6.0	41.9	47.1	5.1
40.0-49.9	7.5	27.9	54.5	10.1	3.3	33.7	57.8	5.1
30.0-39.9	5.1	20.5	63.1	11.4	3.8	31.8	54.2	10.3
20.0-29.9	4.8	19.7	60.8	14.8	4.1	31.2	56.6	7.9
10.0-19.9	6.1	17.6	62.6	13.8	3.6	30.4	57.8	8.4
0.0- 9.9	6.1	18.0	64.8	11.0	2.2	21.5	67.7	8.6

TABLE 5-11 (continued)

Column Number	25	26	27	28	29	30	31	32
SIB Item	240. Earnings to Satisfy		303. Plans to Start College		304. Amount Education Expected		337. Education Parents Expect	
SIB Option	Under $10,000 Annually (A-D)	$10,000 or More Annually (E-K)	Right After High School (B)	Other (A, C-E)	College Degree (E,F)	Other (A-D)	College Degree (D,E)	(A-C, F)
Aptitude Percentile Rank[b]	Percentage in Each Aptitude Group							
				Boys				
90.0-99.9	54.6	45.4	92.0	8.0	94.6	5.4	90.0	10.1
80.0-89.9	53.6	46.4	76.7	23.3	77.4	22.6	76.6	23.5
70.0-79.9	63.3	36.7	69.6	30.4	69.6	30.4	75.2	24.8
60.0-69.9	60.0	40.0	57.5	42.5	50.6	49.4	63.1	36.9
50.0-59.9	64.1	35.9	49.9	50.1	47.3	52.7	51.6	48.5
40.0-49.9	66.7	33.3	37.9	62.1	37.2	62.8	52.1	47.9
30.0-39.9	68.3	31.7	34.5	65.5	27.3	72.7	40.6	59.3
20.0-29.9	68.2	31.8	22.9	77.1	25.1	74.9	33.0	66.7
10.0-19.9	62.4	37.6	23.6	76.4	19.3	80.7	34.6	65.3
0.0- 9.9	59.0	41.0	16.3	83.7	16.0	84.0	24.1	75.8
				Girls				
90.0-99.9	84.0	16.0	82.1	17.9	74.7	25.3	74.6	25.4
80.0-89.9	84.7	15.3	67.5	32.5	51.2	48.8	54.4	45.7
70.0-79.9	88.6	11.4	47.0	53.0	35.5	64.5	43.9	56.0
60.0-69.9	85.0	15.0	45.3	54.7	28.8	71.2	33.2	66.8
50.0-59.9	82.8	17.2	35.5	64.5	19.7	80.3	27.5	72.5
40.0-49.9	79.9	20.1	27.0	73.0	17.4	82.6	26.6	73.5
30.0-39.9	75.6	24.4	27.2	72.8	14.3	85.7	25.5	74.5
20.0-29.9	78.0	22.0	26.5	73.5	17.2	82.8	19.5	80.4
10.0-19.9	73.8	26.2	26.4	73.6	11.0	89.0	33.0	67.0
0.0- 9.9	63.9	36.1	23.5	76.5	11.8	88.2	28.4	71.5

some other variables. This rather weak relationship is no doubt associated with the fact that school marks are based on such a mixture of achievement, interest, and personality. In addition, the schools give about the same distribution of marks although they vary widely in student aptitude, attenuating the relationship of test scores and school marks.

The fairly strong tendency for number of hours per week spent in studying to be positively correlated with general aptitude level among Project TALENT twelfth graders may occasion some surprise. Nonetheless, the relationship shows up in the responses of both boys and girls, more strongly among the latter than the former. It may be caused by the fact that students of high ability tend to take college-preparatory courses and others that require more out-of-class study time than do students of low ability. It is likely that separate tabulation of the responses to the SIB by pupils in various courses of study would be fruitful.

Data in Table 5-11 with respect to the educational and vocational levels of the students' parents show the expected relationships with student aptitude level. Family income level is positively but rather weakly associated with student aptitude level, as is the level of income that would satisfy students in adult life.

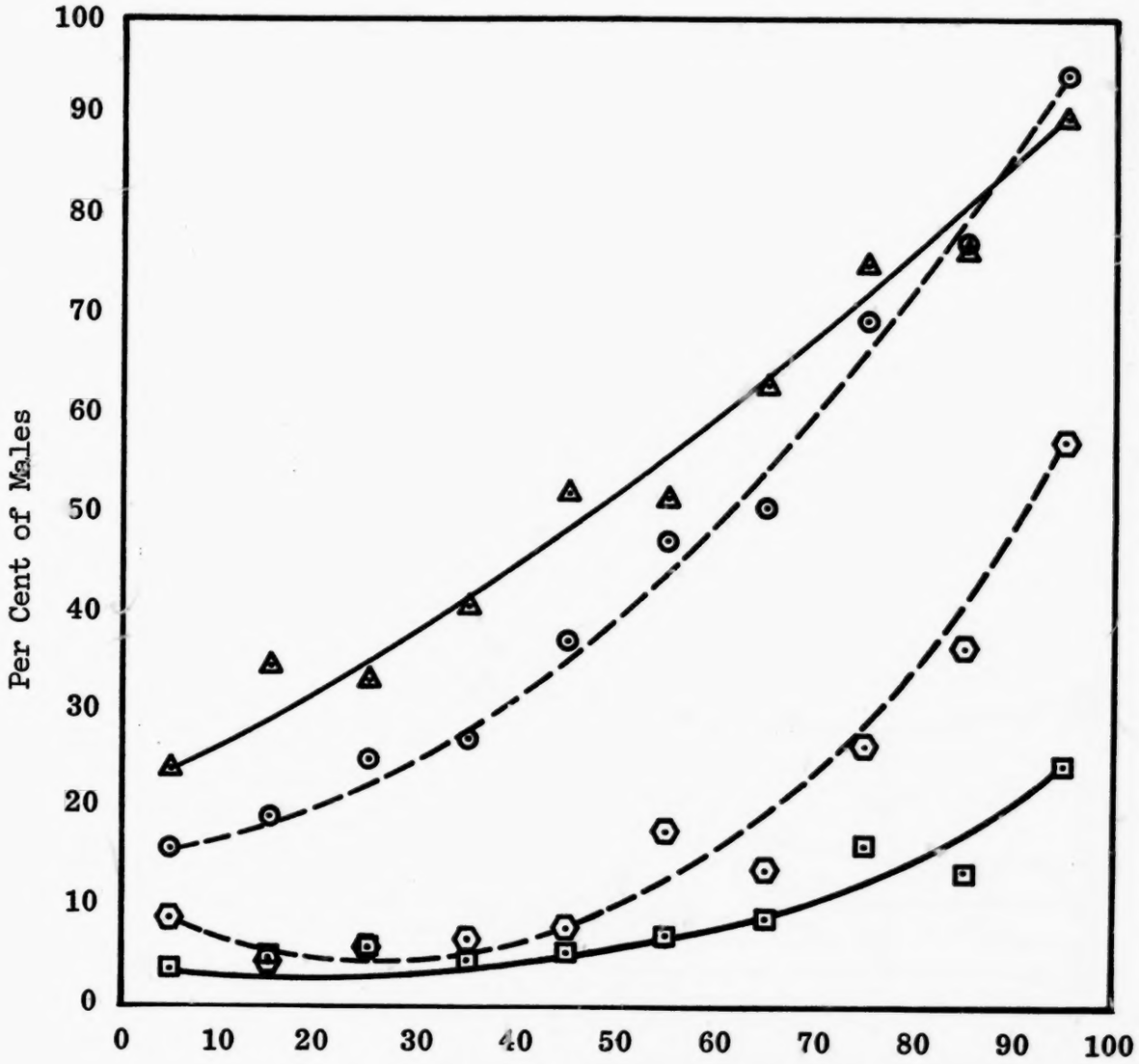
The strongest relationships with student aptitude level are evinced by various aspects of the educational plans of the students. In this connection, it is interesting to note that fairly sizable percentages of the students in the lowest four- or five-tenths of the aptitude distribution expected to attend college and obtain at least a bachelor's degree. In fact, 16 per cent of the boys and 12 per cent of the girls in the lowest tenth of the aptitude distribution had this expectation. Even more, 24 per cent of the boys and 28 per cent of the girls in the lowest tenth said that their parents wanted them to obtain college degrees and, in some instances, continue into graduate or professional training. There are obviously some grounds for concluding that both students of low-aptitude levels and their parents are somewhat overoptimistic about the kind and amount of higher education that they can attain or from which they can benefit. The students appear to be more realistic than their parents in their expectations and demand for higher education. This tendency also displays itself among high-aptitude pupils and their parents with respect to the attainment of advanced degrees.

Figures 5-1 and 5-2 portray for boys and for girls, respectively, the percentages of students who expected to obtain bachelor's degrees or to study for advanced degrees, and the percentages of students who believed that their parents wanted them to obtain bachelor's degrees or to study for advanced degrees. It must be noted that the data about parents' "wants" are those reported by the students. The distinction between what parents <u>want</u> and <u>expect</u> must also be kept in mind in interpreting the data.

Broadly speaking, slightly smaller percentages of twelfth-grade boys below the 80th percentile of the aptitude distribution expect to

FIGURE 5-1

Levels of Education Expected by Male Twelfth-Grade Students and Their Impressions of the Highest Levels That Their Parents Wanted Them to Have (Males Grouped by Tenths of Aptitude Distribution)

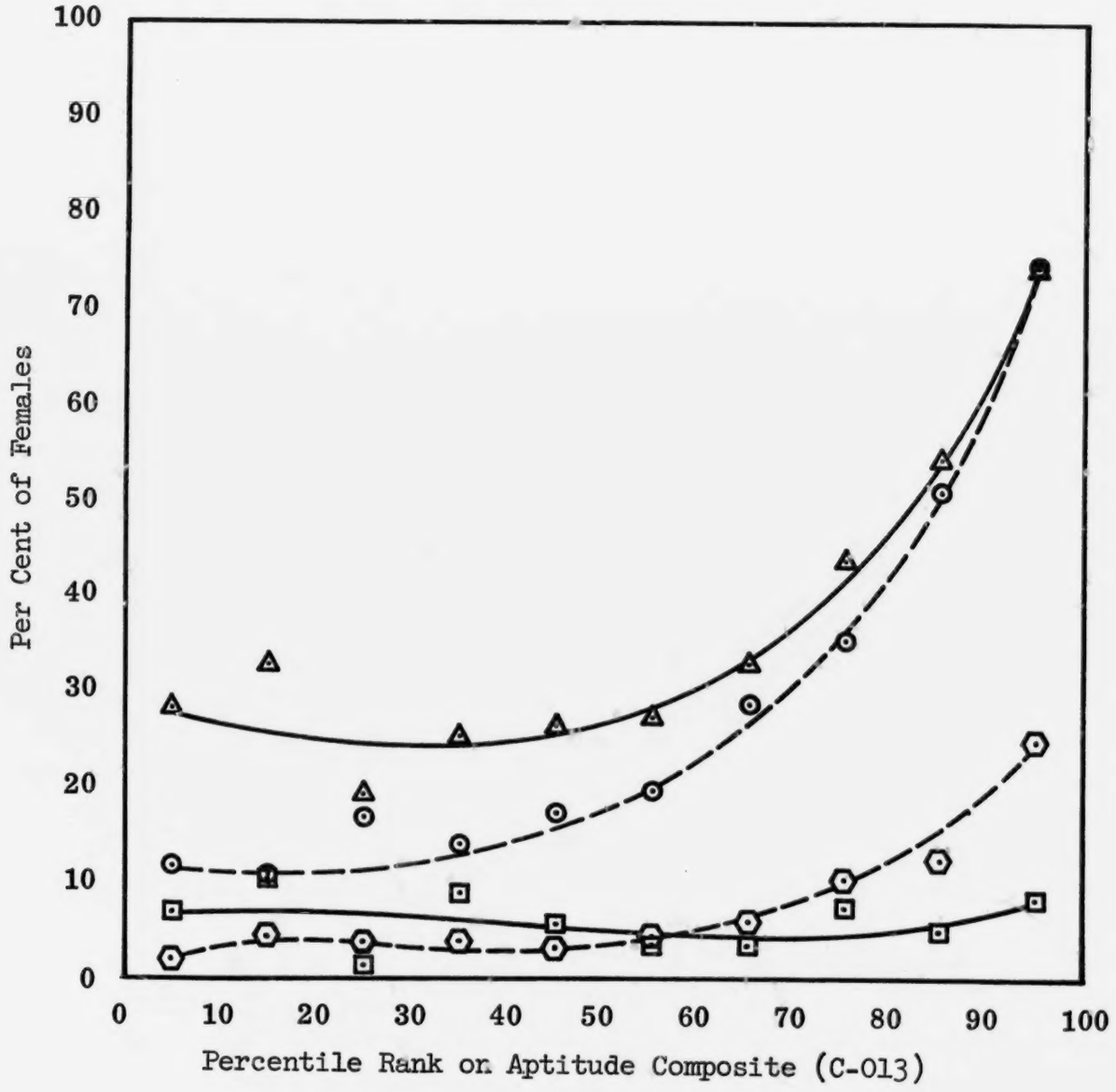


Legend

- Per cent of males who expected to obtain the bachelor's degree (SIB-304, choice E + F).
- Per cent of males who believed their parents wanted them to obtain the bachelor's degree (SIB-337, choice D + E).
- Per cent of males who expected to study for advanced college degrees (SIB-304, choice F).
- Per cent of males who believed their parents wanted them to study for advanced degrees (SIB-337, choice E).

FIGURE 5-2

Levels of Education Expected by Female Twelfth-Grade Students and Their Impressions of the Highest Levels That Their Parents Wanted Them to Have (Females Grouped by Tenths of Aptitude Distribution)



Legend

- Per cent of females who expected to obtain the bachelor's degree (SIB-304, choice E + F).
- Per cent of females who believed their parents wanted them to obtain the bachelor's degree (SIB-337, choice D + E).
- Per cent of females who expected to study for advanced college degrees (SIB-304, choice F).
- Per cent of females who believed their parents wanted them to study for advanced degrees (SIB-337, choice E).

obtain bachelor's degrees than reported that their parents wanted them to do so. In the highest two-tenths of the aptitude distribution, this tendency was mildly reversed. It is interesting to note that, with respect to obtaining advanced degrees, smaller percentages of boys reported that their parents wanted them to obtain advanced degrees than reported that they expected to obtain such degrees. This discrepancy is especially marked among boys at the highest aptitude levels.

The data in Figure 5-2 differ considerably from those portrayed in Figure 5-1. Nonetheless, certain general similarities exist. For example, a larger proportion of girls in the lower half of the aptitude distribution reported that their parents wanted them to obtain the bachelor's degree than reported that they expected to obtain the degree. The marked discrepancy in the reports of girls at high-aptitude levels about their expectations with respect to obtaining advanced degrees and the "wants" of their parents parallels this discrepancy in the reports of the boys.

We may tentatively conclude that students at the lowest aptitude levels expect more education and think that their parents want them to have more education than is realistically possible or even beneficial to them. It also seems likely that students at the higher levels of aptitude expect to obtain more education than they believe that their parents want them to have. Both of these conclusions suggest that more and better information needs to be supplied to parents about the academic aptitudes of their children and about the types of jobs and types of education that are commonly regarded as appropriate for students of different levels of aptitude. Parents should at least have such information to consider. It may be that they do have it and need counseling in how to use it; or it may be that the students have not provided an accurate picture of their parents' wishes with respect to their children's education. In any event, guidance counselors may wish to investigate this matter further.

Needed Research

The material in this chapter is based on only a part of the vast amount of data pertaining to students' backgrounds and aspirations that have been gathered. Comparisons of responses made by students in grades 9, 10, 11, and 12 should prove of interest. Use of these responses to predict variables such as performance in school and college, likelihood of dropping out of high school, or probability of behavior difficulties in terms of mental health and of conflicts with authority should be studied. The data have applications to research studies that extend into sociology, psychology, and related disciplines. It is hoped that such studies can be designed and carried out by qualified scholars in cooperation with the Project TALENT staff.

Summary

A 394-item questionnaire was used by Project TALENT to obtain information about the students' social and economic backgrounds, personal and educational experiences, and educational and vocational aspirations.

Student Characteristics

Students take part in various interest groups. The most common affiliations are with groups sponsored by religious or charitable organizations. Swimming is the most popular sport with both boys and girls. Participation by boys and girls in other sports and hobbies differ greatly.

Information about the early working experiences, sources of spending money, social activities, and health of twelfth-grade students is provided.

Educational Experiences

Most of the students began school at the age of six and continued without interruption (other than minor illnesses) through the grades. About 48 per cent of the boys and 38 per cent of the girls enrolled in a college-preparatory program in high school. Commercial programs enrolled 7 per cent of the boys and 37 per cent of the girls, while 25 per cent of the boys and 19 per cent of the girls enrolled in a general program.

The median twelfth-grade boy studied outside of class for about 8 hours per week and the median girl for about 11 hours per week. Principals of high schools reported in a questionnaire that in grades 9 through 12 they expected their pupils would average about 8 1/2 hours per week of study outside class.

Data regarding school marks and courses taken are summarized.

Educational Plans and Aspirations

About 53 per cent of the high-school senior boys and 46 per cent of the girls expected to enter college immediately after graduation; about 73 per cent of the boys and 58 per cent of the girls planned to attend college at some time; but only 53 per cent of the boys and 33 per cent of the girls expected to graduate from a four-year college. Actually, follow-up data show that 49 per cent of the senior boys and 35 per cent of the senior girls did attend college within a year following testing. Data regarding the students' choices of college fields of study are provided. The most popular choice for boys was engineering; for girls, it was education.

Plans for Financing College Attendance

The amounts of money that the high-school seniors who thought that they might attend college expected to spend during their freshman year for tuition, fees, books, living expenses, etc., are stated together with the expected sources of these funds.

Career Plans and Aspirations

More boys expected to enter engineering than any other field. By far the largest percentage of girls expected to become secretaries, office clerks, or typists. There is some evidence that high-school seniors are unrealistic in their career plans. About 48 per cent of the boys and 40 per cent of the girls planned to enter a professional or technical field; yet Census data show that only about 15 per cent of employed males and 17 per cent of employed females between the ages of 25 and 29 are in professional and technical occupations.

Other Plans and Aspirations

The median incomes expected by the seniors twenty years after graduation from high school were about $11,700 for the boys and about $7,000 for the girls. These expectations far exceed the median incomes in 1960 of men and women who had completed four years of college. It may be that inflation and improving standards of living will bring median incomes closer to the level expected by the students than might at first thought seem likely.

It is interesting to note that very few students expected to be wealthy, but a large majority expected to be in comfortable circumstances. Most of them expected to pay cash for purchases, except for large items like a house or a car.

The median boy expected to get married at 23; the median girl, at 21. Ninety-three per cent of the boys and 97 per cent of the girls expected to have children. The modal number expected by both boys and girls was 3, but 7 per cent of the boys and 13 per cent of the girls expected to have five children or more.

Family and Home

The occupations of their fathers and mothers, as reported by the twelfth-grade pupils, tend to fall into higher level categories more often than would be expected on the basis of Census data. The mothers of about 28 per cent of the students have engaged in regular full-time work and an additional 13 per cent have mothers who have done regular part-time work; the mothers of 24 per cent have done part-time work either regularly or occasionally.

Data reported by the students about the education received by their parents show that the latter were better educated than the American population between the ages of 35 and 59 (roughly the age

range for parents of the Project TALENT sample). This may be accounted for in part by the fact that twelfth-grade students tend to come from families with better-than-average educational levels.

About three-fourths of the students reported living in one-family houses owned (or being purchased) by the family. They estimated the value of the median house as $13,500. Among those living in rented houses or apartments, the median rental was estimated as $65 per month. A description of some of the family possessions and of the equipment in the home has been provided. The median family income in 1959 was estimated to be about $7,000.

Student Background and Aspirations in Relation to Aptitude Level

High-aptitude students contrasted with low-aptitude students, grouped in ten categories of level of academic aptitude, tend to have started school earlier, to have enrolled in college-preparatory courses (such as mathematics and foreign languages) to a greater extent, to have spent more hours per week in studying, to be members of the more prosperous and better educated families, and to have aspirations for obtaining more education.

It is interesting to note that many students in the lower half of the aptitude distribution expected to attend college and obtain at least a bachelor's degree. In fact, 16 per cent of the boys and 12 per cent of the girls in the lowest one-tenth of the aptitude distribution had this expectation. Even more striking is the fact that about 26 per cent of the students in this category reported that their parents wanted them to obtain college degrees. In general, it appears that the educational aspirations of twelfth-grade pupils may be more realistic than their parents' expectations for them in this respect.

Chapter 6

INTERESTS OF AMERICAN YOUTH

Introduction

Traditionally, interest inventories have been used for research and practice in educational and vocational guidance and, to a modest extent, for employee selection.[1] The classic works of Strong and Kuder have provided bases for research and for practical work in measuring interests. More recently, other uses of questionnaires in this field include Clark's[2] measurement of the interests of nonprofessional men and Holland's[3] use of inventoried interests as a measure of personality.

The Project TALENT Interest Inventory

As a part of Project TALENT, an inventory was developed for the purposes of surveying the interests of high-school youth and of obtaining data for research on subsequent educational and vocational choices.[4] This Interest Inventory is made up of 205 items dealing with 122 occupations and 83 activities. The directions emphasized that the student should respond in terms of how well he would like or dislike the work or activity disregarding educational requirements, salary, social standing, or other factors. The item format is a five-point rating scale on which the students indicated:

A. I would like this very much.
B. I would like this fairly well.
C. Indifferent or don't know much about it.
D. I would dislike this a little.
E. I would dislike this very much.

---

[1] For a brief review of related literature, see Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960. Chapter VIII, Part 2.

[2] Clark, K. E. Vocational Interests of Nonprofessional Men. Minneapolis, Minnesota: University of Minnesota Press, 1961, p. 129.

[3] Holland, J. L. "A Personality Inventory Employing Occupational Titles," Psychol. Bull., 1958, 42, 336-342.

[4] Flanagan, J. C., et al. op. cit., Chapter VIII.

Table 6-1 shows the number of items, the reliability coefficients, and the uniqueness coefficients for 16 *a priori* experimental interest scales. These coefficients were obtained in the course of a pilot study of an experimental form of the inventory carried out in 1959 on a sample of 655 cases. The experimental form contained 300 items; items were discarded that did not correlate with the *a priori* scales, leaving 205 items for the final form.

The reliability coefficients of eleven of the sixteen scales exceeded .70, and the remaining five coefficients exceeded .45. These levels of reliability are generally considered quite acceptable for group measurement. The uniqueness coefficients indicated that all but three of the scales possessed considerable unique variance. The scales measuring interest in skilled trades, business management, and social service, which had uniqueness coefficients of only .086, .150, and .180, respectively, were modified as a result of this analysis to increase the proportions of unique variance in them. Whether this effort was successful is unknown, since reliability coefficients and uniqueness coefficients have not yet been obtained for the final forms of the scales.

In Table 6-2 the columns headed A, B, C, D, and E show the percentages of boys or of girls who select each of these choices with respect to the 122 occupations and 83 activities. For example, 7 per cent of twelfth-grade boys reported that they would like very much to be a bookkeeper. Sixteen per cent of twelfth-grade girls reported that they would dislike this very much.

The column headed "Mean" shows for each occupation or activity the mean choice selected by the boys and girls. For this computation, choice A was given a value of 1; choice B, 2; choice C, 3; choice D, 4; and choice E, 5. Bookkeeper has a mean choice value of 3.3 among boys. They show mild disliking for it. Among girls it has a mean choice value of 2.9; they show a very slight degree of liking for it. By and large, they are indifferent to it.

Appendix F shows the mean choice values for each item in the Interest Inventory separately for boys and for girls in each of grades 9 through 12. Table 6-3 shows the 20 occupations liked most by boys and by girls in each of grades 9 through 12. These have been arranged in each list in order of mean choice value.

Among boys and girls in the twelfth grade, there is no overlap among the first 20 occupations chosen. The first four occupations selected by the girls appear to be more highly favored by them than any of the occupations chosen by the boys. The latter like engineering (mechanical, civil, electrical, aeronautical, chemical, mining), sciences, Armed Forces, business, and a few technical and trade occupations. The occupations best liked by the girls include many that are traditionally considered feminine occupations, such as social worker, secretary, and typist. It is of interest to note that medical-science occupations (doctor, surgeon, etc.) and public-office occupations (President of the United States, Senator, Mayor, etc.) were not liked well

TABLE 6-1

Reliability Coefficients and Uniqueness Coefficients for Sixteen A Priori Scales in the Experimental Form of the Interest Inventory[a]

	Interest Inventory Scale	$r_{AA'}$[b]	Number of Items	U'^2[c]
1.	Mechanical-Technical	.849	15	.275
2.	Skilled Trades	.712	26	.086
3.	Science	.932	17	.465
4.	Public Service	.842	11	.475
5.	Business-Management	.560	16	.150
6.	Computational	.651	11	.368
7.	Office Work	.826	10	.407
8.	Sales	.736	7	.356
9.	Outdoor Recreation	.667	3	.325
10.	Sports	.479	10	.271
11.	Farm and Ranch	.751	7	.399
12.	Literary-Linguistic	.783	11	.258
13.	Musical	.810	5	.436
14.	Artistic	.723	7	.240
15.	Labor	.771	18	.226
16.	Social Service	.550	7	.180

[a] This table was adapted from Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U.S. Office of Education, Cooperative Research Project No. 635. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960. Chapter VIII, Table VIII-13.

[b] Split-half coefficient corrected by the Spearman-Brown Prophecy Formula (N=655).

[c] U'^2 represents an estimate of the proportion of unique nonchance scale variance.

TABLE 6-2

Percentages of Boys and of Girls in Grade 12 Who Marked Choices A-E in 205 Interest Inventory Items and Their Mean Scores on These Items

			A	B	C	D	E	Mean[a]
1.	Bookkeeper	B	7	24	24	24	21	3.3
		G	19	29	17	19	16	2.9
2.	Bank teller	B	7	27	26	26	14	3.1
		G	10	35	24	20	13	2.9
3.	Surgeon	B	11	21	24	23	21	3.2
		G	11	21	18	20	30	3.3
4.	Chemist	B	16	31	20	18	14	2.8
		G	9	18	18	21	34	3.5
5.	Civil engineer	B	18	36	27	12	6	2.5
		G	2	6	25	21	42	4.0
6.	Dentist	B	8	23	24	26	19	3.3
		G	4	16	14	27	38	3.8
7.	Toolmaker	B	10	24	27	21	17	3.1
		G	0	2	11	16	70	4.5
8.	Automobile mechanic	B	24	29	17	16	15	2.7
		G	2	6	11	15	66	4.4
9.	Butcher	B	3	13	18	32	33	3.8
		G	1	4	7	17	70	4.5
10.	Tailor or dressmaker	B	2	7	14	26	51	4.2
		G	17	38	15	17	13	2.7
11.	Dietitian	B	1	6	20	27	46	4.1
		G	10	36	23	14	16	2.9
12.	Cab driver	B	4	23	18	27	28	3.5
		G	1	10	12	19	57	4.2
13.	Longshoreman	B	3	15	34	21	26	3.5
		G	1	3	29	12	56	4.2
14.	Foreman	B	14	45	21	15	6	2.5
		G	3	15	22	18	42	3.8
15.	Army officer	B	18	41	18	14	9	2.6
		G	8	23	17	15	38	3.5
16.	College president	B	17	26	25	18	15	2.9
		G	14	25	20	17	24	3.1
17.	Insurance agent	B	6	27	29	24	14	3.1
		G	3	20	22	25	30	3.6
18.	Stock salesman	B	7	24	29	26	14	3.2
		G	4	16	22	24	33	3.7
19.	Foreign correspondent	B	15	25	25	19	16	2.9
		G	29	35	16	8	12	2.4
20.	Editor	B	9	28	28	22	14	3.1
		G	16	32	24	18	11	2.8
21.	Musician	B	13	22	20	22	23	3.2
		G	22	28	14	19	16	2.8
22.	Aviator	B	31	35	18	10	5	2.2
		G	12	22	22	18	27	3.3
23.	Rancher	B	28	34	18	12	9	2.4
		G	22	29	16	15	18	2.8
24.	Airline hostess or steward	B	3	14	23	20	40	3.8
		G	46	36	8	6	4	1.9
25.	Social worker	B	7	15	26	28	25	3.5
		G	37	34	14	9	6	2.1
26.	Statistician	B	5	13	36	23	23	3.4
		G	4	12	40	19	24	3.5
27.	Astronomer	B	10	26	26	20	18	3.1
		G	8	16	22	20	34	3.6
28.	Research scientist	B	20	29	19	16	15	2.8
		G	13	21	16	18	31	3.3
29.	Office clerk	B	4	20	24	28	24	3.5
		G	20	35	12	18	15	2.7
30.	Store clerk	B	4	21	19	31	24	3.5
		G	11	30	14	23	22	3.2
31.	Plumber	B	3	19	20	32	26	3.6
		G	0	2	8	14	75	4.6
32.	Electrician	B	14	34	20	20	12	2.8
		G	1	3	12	18	66	4.4
33.	Fireman	B	5	20	22	31	23	3.5
		G	1	5	10	16	69	4.5
34.	Dish washer	B	1	2	4	16	77	4.7
		G	1	4	4	16	75	4.6
35.	Maid	B	2	2	4	9	83	4.7
		G	1	9	6	23	60	4.3
36.	Naval officer	B	25	36	16	12	10	2.5
		G	9	20	19	15	36	3.5
37.	Personnel administrator	B	8	23	38	16	15	3.1
		G	16	30	26	13	14	2.8
38.	Credit manager	B	6	23	32	23	16	3.2
		G	10	26	28	18	19	3.1
39.	Lawyer	B	21	33	20	15	11	2.6
		G	21	30	16	15	18	2.8
40.	Reporter	B	10	33	23	20	13	2.9
		G	19	37	16	14	15	2.7
41.	Sculptor	B	8	12	21	26	34	3.7
		G	12	16	21	18	33	3.4
42.	Forester	B	21	29	18	17	14	2.8
		G	7	13	18	20	41	3.7
43.	Elementary school teacher	B	6	15	14	23	42	3.8
		G	33	33	9	14	12	2.4
44.	Nurse	B	2	7	10	19	63	4.3
		G	29	30	11	14	16	2.6
45.	Chemical engineer	B	21	26	20	15	18	2.8
		G	7	9	24	19	41	3.8
46.	Doctor	B	18	25	19	18	20	3.0
		G	23	23	11	16	27	3.0
47.	Pharmacist	B	12	27	27	19	16	3.0
		G	10	23	22	17	28	3.3
48.	Aeronautical engineer	B	22	30	24	12	11	2.6
		G	4	7	28	15	45	3.9
49.	Secretary	B	2	10	20	29	38	3.9
		G	40	32	9	10	10	2.2
50.	Technician	B	15	33	27	13	12	2.8
		G	12	20	28	15	24	3.2
51.	Electronics technician	B	19	30	25	15	12	2.7
		G	2	6	27	18	46	4.0
52.	Bricklayer	B	5	22	19	29	25	3.5
		G	1	2	6	16	76	4.6
53.	Riveter	B	3	15	21	28	32	3.7
		G	0	1	13	11	76	4.6
54.	House painter	B	2	15	16	31	36	3.8
		G	1	6	7	19	68	4.5
55.	Mail carrier	B	3	15	15	34	33	3.8
		G	1	7	8	21	63	4.4
56.	Building superintendent	B	7	28	26	22	17	3.1
		G	4	11	16	22	46	4.0

TABLE 6-2 (continued)

			A	B	C	D	E	Mean[a]
57.	President of a large company	B	33	31	18	10	8	2.3
		G	21	28	17	14	21	2.9
58.	Author of a novel	B	18	21	20	18	23	3.1
		G	32	28	12	12	16	2.5
59.	Librarian	B	1	7	16	29	46	4.1
		G	15	34	16	19	16	2.9
60.	Economist	B	4	17	26	24	30	3.6
		G	11	26	25	18	19	3.1
61.	Actor or actress	B	16	26	17	16	25	3.1
		G	28	29	12	14	17	2.6
62.	Professional athlete	B	39	27	13	11	11	2.3
		G	17	21	11	18	34	3.3
63.	Policeman	B	12	30	22	21	16	3.0
		G	5	15	13	21	46	3.9
64.	Clergyman	B	6	16	24	26	28	3.5
		G	9	16	16	20	39	3.6
65.	Certified Public Accountant	B	12	23	24	20	21	3.2
		G	15	17	20	16	32	3.3
66.	Spaceman	B	22	22	20	16	21	2.9
		G	9	9	10	13	59	4.0
67.	Biologist	B	14	24	20	23	19	3.1
		G	13	18	13	17	40	3.5
68.	Electrical engineer	B	29	29	19	12	11	2.5
		G	2	6	17	16	58	4.2
69.	Mining engineer	B	17	30	25	17	12	2.8
		G	2	3	15	16	63	4.4
70.	Typist	B	3	13	19	31	34	3.8
		G	38	32	9	11	10	2.2
71.	Laboratory technician	B	13	27	24	18	17	3.0
		G	16	26	20	13	25	3.0
72.	Repairman	B	8	25	22	24	22	3.3
		G	1	4	10	22	62	4.4
73.	Beautician	B	2	6	13	21	57	4.2
		G	28	34	10	14	14	2.5
74.	Railroad brakeman	B	4	14	16	29	37	3.8
		G	1	2	9	14	75	4.6
75.	Shoemaker	B	2	7	13	31	48	4.2
		G	0	4	8	18	70	4.5
76.	Factory worker	B	4	17	16	27	36	3.7
		G	2	9	7	21	62	4.3
77.	Deliveryman	B	4	18	15	31	31	3.7
		G	1	5	8	20	66	4.4
78.	Truck driver	B	14	31	16	20	20	3.0
		G	2	5	7	16	71	4.5
79.	Building contractor	B	14	38	26	13	9	2.7
		G	3	10	17	17	53	4.1
80.	Marine Corps officer	B	23	32	17	15	14	2.6
		G	8	19	15	14	43	3.7
81.	Real estate agent	B	7	26	26	23	19	3.2
		G	7	21	18	20	33	3.5
82.	Interpreter	B	8	16	23	28	26	3.5
		G	21	29	18	12	19	2.8
83.	Writer	B	11	18	17	24	30	3.4
		G	26	30	12	16	17	2.7
84.	Musical composer	B	11	14	17	20	39	3.6
		G	21	22	14	18	25	3.0
85.	Architect	B	24	31	19	13	14	2.6
		G	17	22	19	15	27	3.1
86.	Decorator	B	9	22	26	22	21	3.2
		G	41	36	11	7	6	2.0
87.	Sports umpire or referee	B	14	24	19	22	20	3.1
		G	6	11	14	20	48	3.9
88.	Guidance counselor	B	8	18	26	25	22	3.3
		G	27	33	16	11	13	2.5
89.	Accountant or auditor	B	11	21	22	25	22	3.3
		G	15	21	17	18	29	3.2
90.	Mechanical engineer	B	28	32	19	10	10	2.4
		G	3	5	17	19	55	4.2
91.	Mathematician	B	17	27	18	19	20	3.0
		G	11	15	9	16	48	3.8
92.	Switchboard operator	B	3	7	19	30	40	4.0
		G	22	32	15	15	16	2.7
93.	Machinist	B	14	26	19	21	19	3.1
		G	1	4	15	20	59	4.3
94.	Welder	B	13	24	19	21	22	3.2
		G	1	1	10	14	74	4.6
95.	Paper hanger	B	1	6	14	31	48	4.2
		G	1	3	8	16	72	4.6
96.	Carpenter	B	9	26	19	25	21	3.2
		G	1	6	8	16	68	4.5
97.	Type setter	B	4	12	22	28	34	3.8
		G	4	10	20	18	48	4.0
98.	Draftsman	B	15	29	22	16	16	2.9
		G	4	10	18	16	52	4.0
99.	Housewife	B	2	2	6	6	84	4.7
		G	68	21	4	4	4	1.5
100.	Air Force officer	B	34	30	12	12	12	2.4
		G	12	22	16	14	37	3.4
101.	Office manager	B	13	33	24	16	13	2.8
		G	19	33	15	14	19	2.8
102.	Banker	B	15	29	22	19	15	2.9
		G	13	29	18	18	22	3.1
103.	Salesman	B	7	21	21	25	25	3.4
		G	6	18	13	24	40	3.8
104.	College professor	B	13	23	18	19	27	3.2
		G	19	18	13	17	34	3.3
105.	Poet	B	7	10	14	22	47	3.9
		G	16	16	12	20	35	3.4
106.	Artist	B	14	17	16	20	34	3.4
		G	27	25	11	14	24	2.8
107.	Designer	B	16	28	21	16	19	2.9
		G	39	32	9	9	10	2.2
108.	Farmer	B	14	22	16	19	29	3.3
		G	9	18	10	19	44	3.7
109.	High school teacher	B	13	21	17	19	30	3.3
		G	26	27	9	16	23	2.8
110.	Religious worker	B	7	19	20	25	30	3.5
		G	23	27	16	15	18	2.8
111.	School principal	B	12	18	18	22	30	3.4
		G	16	19	12	18	35	3.4
112.	Psychologist	B	14	21	22	17	26	3.2
		G	29	20	16	10	25	2.8
113.	Member of President's cabinet	B	18	22	21	16	23	3.0
		G	14	16	16	18	37	3.5
114.	Judge	B	16	26	19	18	20	3.0
		G	11	17	16	19	37	3.5
115.	U. S. Senator	B	18	24	20	16	22	3.0
		G	10	16	14	18	42	3.6
116.	Politician	B	13	20	21	19	28	3.3
		G	6	14	13	20	48	3.9

TABLE 6-2 (continued)

			A	B	C	D	E	Mean[a/]
117.	U. S. Congressman	B	17	24	20	18	22	3.0
		G	9	16	14	18	44	3.7
118.	Mayor	B	15	23	24	18	21	3.1
		G	8	14	15	20	43	3.8
119.	President of the United States	B	23	19	16	16	26	3.0
		G	10	11	12	16	51	3.9
120.	Vice President of the United States	B	22	19	16	17	26	3.1
		G	9	13	12	17	49	3.8
121.	State governor	B	20	22	20	16	23	3.0
		G	8	15	14	18	45	3.8
122.	Public administrator	B	10	20	30	17	23	3.2
		G	8	17	20	19	36	3.6
123.	Take care of members of family	B	12	28	24	23	13	3.0
		G	36	38	11	11	4	2.1
124.	Make out income tax returns	B	4	17	22	27	30	3.6
		G	6	15	18	22	40	3.8
125.	Biology	B	15	22	20	22	21	3.1
		G	17	21	12	16	33	3.3
126.	Physics	B	16	25	17	19	22	3.1
		G	7	15	18	20	43	3.8
127.	Study muscles and nerves	B	12	22	20	23	21	3.2
		G	12	21	13	21	33	3.4
128.	Calculus	B	12	17	26	20	24	3.3
		G	5	7	27	17	45	3.9
129.	Keep records for a store	B	5	20	22	28	26	3.5
		G	13	27	13	22	25	3.2
130.	Invent new tools	B	13	33	24	17	12	2.8
		G	2	9	14	23	53	4.2
131.	Fix furniture	B	6	21	21	30	23	3.4
		G	3	9	12	25	52	4.1
132.	Work on an automobile assembly line	B	15	22	16	22	24	3.2
		G	2	5	8	17	67	4.4
133.	Wash and iron clothes	B	1	3	5	15	77	4.7
		G	8	27	9	22	34	3.5
134.	Plan work for other people	B	6	24	23	24	23	3.3
		G	11	30	17	23	19	3.1
135.	Own your own business	B	47	32	11	5	4	1.9
		G	38	30	12	9	11	2.2
136.	Reading	B	15	27	16	19	23	3.1
		G	40	29	8	11	12	2.3
137.	Sociology	B	10	18	28	20	23	3.3
		G	28	21	23	11	18	2.7
138.	Fishing	B	34	33	14	12	7	2.2
		G	16	27	15	19	23	3.1
139.	Basketball	B	38	31	13	10	8	2.2
		G	26	31	13	16	15	2.6
140.	Tennis	B	22	32	21	14	10	2.6
		G	30	37	13	10	10	2.3
141.	Raise sheep or cattle for market	B	17	26	20	18	20	3.0
		G	8	15	14	21	44	3.8
142.	Help your parents	B	21	45	18	11	4	2.3
		G	40	40	9	6	4	1.9
143.	Work arithmetic problems	B	16	28	16	20	20	3.0
		G	14	21	8	18	38	3.4
144.	Prepare cost estimates	B	7	24	25	24	20	3.3
		G	7	16	18	21	38	3.7
145.	Fortune telling	B	1	4	9	17	69	4.5
		G	4	7	10	12	66	4.3
146.	Typewriting	B	6	17	18	24	36	3.7
		G	40	30	8	10	11	2.2
147.	Make a radio set	B	18	30	22	15	15	2.8
		G	4	10	22	20	45	3.9
148.	Fix a clock	B	11	30	24	19	16	3.0
		G	3	10	21	22	44	3.9
149.	Operate a power machine	B	17	31	22	16	15	2.8
		G	2	8	16	22	52	4.1
150.	Fire a person	B	4	7	15	24	51	4.1
		G	2	3	6	14	76	4.6
151.	Manage a large store	B	23	30	20	14	14	2.7
		G	19	27	14	18	22	3.0
152.	Save money	B	54	32	7	3	3	1.7
		G	62	28	5	2	2	1.6
153.	Work for myself	B	52	30	10	5	4	1.8
		G	43	34	10	8	5	2.0
154.	Write letters	B	3	18	20	32	28	3.6
		G	25	36	10	17	11	2.5
155.	Practice music all day	B	5	9	8	20	58	4.2
		G	9	15	10	22	44	3.8
156.	Art galleries	B	7	13	13	22	46	3.9
		G	17	20	14	16	32	3.3
157.	Football	B	41	29	13	8	10	2.2
		G	17	20	14	17	33	3.3
158.	Track	B	30	30	16	14	11	2.5
		G	10	15	16	19	40	3.6
159.	Operate farm machinery	B	16	26	19	19	20	3.0
		G	4	8	11	19	58	4.2
160.	Operate a calculating machine	B	13	26	24	17	20	3.1
		G	16	23	15	13	34	3.3
161.	Physiology	B	13	19	27	17	23	3.2
		G	18	16	22	13	30	3.2
162.	Chemistry	B	22	23	18	16	21	2.9
		G	14	15	17	14	40	3.5
163.	Play chess	B	12	21	23	19	24	3.2
		G	8	17	25	15	36	3.5
164.	Solve puzzles	B	10	31	20	20	19	3.1
		G	15	32	13	18	21	3.0
165.	Do clerical work	B	7	16	24	26	26	3.5
		G	25	28	14	15	17	2.7
166.	Repair an auto	B	32	30	15	13	10	2.4
		G	3	7	15	17	58	4.2
167.	Operate a crane or derrick	B	14	27	20	20	18	3.0
		G	1	2	13	14	69	4.5
168.	Work in a steel mill	B	8	21	23	24	24	3.4
		G	1	3	8	12	75	4.6
169.	Hire a person	B	15	39	27	12	7	2.6
		G	20	38	18	10	14	2.6
170.	Give orders to workers in a factory	B	12	35	28	15	10	2.7
		G	7	23	22	23	24	3.3
171.	Buy stocks	B	18	36	25	12	10	2.6
		G	16	29	21	15	19	2.9
172.	Sell furniture	B	4	18	26	30	20	3.4
		G	6	18	19	28	29	3.5
173.	Watch TV	B	15	38	21	14	11	2.7
		G	26	40	10	15	9	2.4
174.	Act in plays	B	14	21	20	22	24	3.2
		G	30	29	11	15	15	2.6
175.	Trap wild animals	B	21	31	17	16	15	2.7
		G	9	12	12	17	50	3.9
176.	Foreign Language	B	8	20	20	23	29	3.4
		G	29	27	13	13	19	2.7

TABLE 6-2 (continued)

			A	B	C	D	E	Mean[a]
177.	Teach children	B	9	23	21	24	23	3.3
		G	48	31	8	8	5	1.9
178.	Help the poor	B	18	37	23	14	8	2.6
		G	53	32	7	4	3	1.7
179.	Keep accounts	B	8	24	21	23	24	3.3
		G	21	24	14	16	26	3.0
180.	Algebra	B	19	26	14	17	23	3.0
		G	17	18	11	16	39	3.4
181.	Learn about diseases	B	17	26	22	19	16	2.9
		G	31	29	12	15	13	2.5
182.	Become a millionaire	B	62	20	9	6	3	1.7
		G	54	23	8	8	7	1.9
183.	Sell merchandise to stores	B	12	26	26	19	17	3.0
		G	17	25	18	19	22	3.1
184.	Literature	B	10	20	20	22	28	3.4
		G	26	27	12	16	20	2.8
185.	Write themes	B	6	16	17	26	34	3.7
		G	14	25	12	22	27	3.2
186.	Go to school	B	12	39	17	15	16	2.8
		G	26	40	10	13	12	2.4
187.	Symphony concerts	B	11	16	15	19	39	3.6
		G	21	23	13	17	25	3.0
188.	Hunting	B	47	29	10	8	5	1.9
		G	14	18	15	18	34	3.4
189.	Swimming	B	54	30	7	4	4	1.7
		G	52	29	6	7	6	1.9
190.	Feed hogs and cattle	B	13	21	18	21	28	3.3
		G	6	11	11	18	54	4.0
191.	Sell tickets for a railroad or airline	B	6	17	24	27	25	3.5
		G	19	27	12	17	25	3.0
192.	Shop work	B	15	28	21	20	17	3.0
		G	4	9	16	24	47	4.0
193.	Do odd jobs with small tools	B	9	27	20	24	20	3.2
		G	2	7	12	25	54	4.2
194.	Direct people	B	9	27	29	20	15	3.1
		G	12	29	18	21	19	3.1
195.	Arrange strike settlement with mgt.	B	10	24	27	19	21	3.2
		G	6	14	19	17	44	3.8
196.	Invest money	B	24	41	16	10	8	2.4
		G	24	35	18	11	12	2.5
197.	Poetry	B	6	13	14	24	42	3.8
		G	19	23	14	18	27	3.1
198.	Play an instrument	B	18	25	14	16	27	3.1
		G	30	29	10	13	18	2.6
199.	Studying	B	6	32	23	22	16	3.1
		G	12	39	17	19	13	2.8
200.	Visit museums	B	14	29	20	19	19	3.0
		G	25	34	12	15	15	2.6
201.	Exploring	B	37	40	10	7	6	2.1
		G	31	31	11	11	16	2.5
202.	Military drill	B	14	30	24	18	14	2.9
		G	7	12	22	20	40	3.7
203.	Baseball	B	41	28	12	10	9	2.2
		G	24	28	13	13	21	2.8
204.	Gardening	B	8	25	21	27	20	3.3
		G	19	35	13	17	16	2.8
205.	Campaign for political office	B	8	17	21	19	36	3.6
		G	6	13	14	18	49	3.9

[a] In computing the means, the following values were used: A=1; B=2; C=3; D=4; E=5. Omissions were assigned a value of 2. The 4-per-cent sample was used. See note 2 to Appendix F.

TABLE 6-3

Occupations That High-School Boys and Girls Like Most in Rank Order of the Means by Grade

BOYS

Rank Order	9th Grade	Mean	10th Grade	Mean	11th Grade	Mean	12th Grade	Mean
1.	Air Force officer	2.3	Professional athlete	2.3	Aviator	2.3	Aviator	2.2
2.	Aviator	2.3	Aviator	2.3	Professional athlete	2.3	Professional athlete	2.3
3.	Professional athlete	2.3	Rancher	2.3	Air Force officer	2.3	President of a large company	2.3
4.	Rancher	2.4	Air Force officer	2.4	Rancher	2.4	Air Force officer	2.4
5.	Naval officer	2.5	Naval officer	2.5	Naval officer	2.4	Rancher	2.4
6.	Mechanical engineer	2.5	Mechanical engineer	2.5	President of a large company	2.4	Mechanical engineer	2.4
7.	Army officer	2.5	Automobile mechanic	2.5	Mechanical engineer	2.5	Naval officer	2.5
8.	Automobile mechanic	2.5	Army officer	2.5	Electrical engineer	2.6	Electrical engineer	2.5
9.	Electrical engineer	2.5	Electrical engineer	2.5	Automobile mechanic	2.6	Civil engineer	2.5
10.	Marine Corps officer	2.6	President of a large company	2.6	Army officer	2.6	Foreman	2.5
11.	Civil engineer	2.6	Marine Corps officer	2.6	Foreman	2.6	Army officer	2.6
12.	Foreman	2.6	Civil engineer	2.6	Civil engineer	2.6	Aeronautical engineer	2.6
13.	President of a large company	2.7	Foreman	2.7	Marine Corps officer	2.6	Lawyer	2.6
14.	Research scientist	2.7	Aeronautical engineer	2.7	Aeronautical engineer	2.7	Architect	2.6
15.	Aeronautical engineer	2.7	Lawyer	2.8	Lawyer	2.7	Marine Corps officer	2.6
16.	Chemist	2.8	Research scientist	2.8	Building contractor	2.7	Building contractor	2.6
17.	Chemical engineer	2.8	Electronics technician	2.8	Electronics technician	2.8	Automobile mechanic	2.7
18.	Lawyer	2.8	Chemical engineer	2.8	Forester	2.8	Electronics technician	2.7
19.	Electrician	2.8	Building contractor	2.8	Research scientist	2.8	Forester	2.8
20.	Electronics technician	2.8	Chemist	2.9	Architect	2.8	Technician	2.8

GIRLS

Rank Order	9th Grade	Mean	10th Grade	Mean	11th Grade	Mean	12th Grade	Mean
1.	Housewife	1.7	Housewife	1.7	Housewife	1.6	Housewife	1.5
2.	Air line hostess	1.9	Air line hostess	1.9	Air line hostess	1.9	Air line hostess	1.9
3.	Secretary	2.0	Secretary	2.1	Secretary	2.1	Decorator	2.0
4.	Typist	2.0	Typist	2.1	Typist	2.1	Social worker	2.1
5.	Actress	2.4	Social worker	2.3	Social worker	2.2	Secretary	2.2
6.	Social worker	2.4	Decorator	2.3	Decorator	2.2	Designer	2.2
7.	Beautician	2.4	Designer	2.4	Designer	2.3	Typist	2.2
8.	Elementary school teacher	2.4	Beautician	2.4	Beautician	2.4	Elementary school teacher	2.4
9.	Decorator	2.4	Elementary school teacher	2.5	Elementary school teacher	2.5	Foreign correspondent	2.4
10.	Nurse	2.5	Nurse	2.5	Actress	2.5	Beautician	2.5
11.	Designer	2.5	Actress	2.5	Foreign correspondent	2.6	Guidance counselor	2.5
12.	Bookkeeper	2.7	Author of a novel	2.7	Nurse	2.6	Author of a novel	2.5
13.	Dressmaker	2.7	Foreign correspondent	2.7	Author of a novel	2.6	Nurse	2.6
14.	Author of a novel	2.7	Reporter	2.8	Guidance counselor	2.6	Actress	2.6
15.	Librarian	2.8	Dressmaker	2.8	Reporter	2.7	Writer	2.7
16.	Reporter	2.8	Bookkeeper	2.8	Office clerk	2.7	Reporter	2.7
17.	Office clerk	2.8	Guidance counselor	2.8	Dressmaker	2.8	Switchboard operator	2.7
18.	Foreign correspondent	2.8	Editor	2.8	Switchboard operator	2.8	Office clerk	2.7
19.	Editor	2.8	Writer	2.8	Bookkeeper	2.8	Dressmaker	2.7
20.	Rancher	2.9	Librarian	2.9	Editor	2.8	Editor	2.8

enough to gain places on the lists of the 20 most liked.

The occupations that secondary-school boys think they would like best may be grouped around a few basic themes. The first of these might be called the "masculine hero appeal." Air Force officers, aviators, professional athletes, ranchers, and some of the others listed have a glamorous appeal to teen-agers as real "he-men" engaged in adventurous and spectacular exploits. The second theme might be called the drive for money or power. This is best represented by "President of a large company." The third theme might be called "scientific-technical appeal." This is represented by research-scientist, engineers of various types, electronics technician, and (at a somewhat lower technical level) by automobile mechanic and electrician.

It is apparent that the changes in the list from grade 9 to 12 reflect an increase in the sophistication of the boys with respect to the nature of the jobs and the incomes they provide. The drive for money and power appears to increase in strength from grade 9 to 12.

If the occupations that girls think they would like best are grouped in terms of underlying themes, the first seems to be the feminine ideal of a woman as a homemaker, a wife, and a mother. The second might be called glamor and adventure. This is represented by airline hostess, decorator, designer, actress, and foreign correspondent,—and even by rancher among ninth-grade girls. The third might be called social-service and is represented by social worker, school teacher, guidance counselor, and nurse. A fourth might be called the practical desire to make a living. The jobs mentioned that fit this theme are those traditionally held by women, such as secretary, typist, switchboard operator, etc.

The ten activities liked the most and the ten liked the least by boys and by girls are shown in Table 6-4. Inspection of this table shows that sports are of primary interest to high-school boys. Their basic desires for money and financial success are shown by the high choice values they assign to "save money" and "become millionaire." They want to own their own businesses and work for themselves. The teen-agers' interest in adventure is reflected in their choice of "exploring."

The ten things that boys like the least include cultural activities such as attending symphony concerts and visiting art galleries. They also include literary activities like reading poetry and writing themes. The boys don't like clerical work (keeping records for a store, filling out tax returns, and writing letters) or activities they think of as feminine, such as washing and ironing clothes.

Among the girls, the ten activities they like the most include only one sport (swimming) after grade 9. Like the boys, the girls are interested in saving money, becoming millionaires, working for themselves, and owning their own businesses. Unlike the boys, they express

TABLE 6-4

Ten Activities That High-School Boys and Girls Like Most
and Ten That They Like Least in Rank Order of the Means by Grade

BOYS

	Rank[a] Order	9th Grade	Mean	10th Grade	Mean	11th Grade	Mean	12th Grade	Mean
Like Most	1.	Swimming	1.8	Swimming	1.7	Save money	1.7	Become millionaire	1.7
	2.	Save money	1.9	Save money	1.8	Become millionaire	1.7	Save money	1.7
	3.	Become millionaire	1.9	Become millionaire	1.8	Swimming	1.7	Swimming	1.7
	4.	Hunting	1.9	Hunting	1.9	Work for myself	1.9	Work for myself	1.8
	5.	Work for myself	2.1	Work for myself	1.9	Hunting	1.9	Own your own business	1.9
	6.	Baseball	2.1	Own your own business	2.1	Own your own business	2.0	Hunting	1.9
	7.	Exploring	2.1	Baseball	2.1	Exploring	2.1	Exploring	2.1
	8.	Own your own business	2.1	Exploring	2.1	Football	2.1	Football	2.2
	9.	Basketball	2.2	Fishing	2.1	Baseball	2.2	Baseball	2.2
	10.	Fishing	2.2	Basketball	2.2	Basketball	2.2	Basketball	2.2
Like Least	74.	Keep records for a store	3.7	Symphony concerts	3.7	Write themes	3.8	Fill out tax returns	3.6
	75.	Symphony concerts	3.8	Write letters	3.7	Typewriting	3.8	Write letters	3.6
	76.	Write themes	3.8	Write themes	3.8	Write letters	3.8	Write themes	3.7
	77.	Poetry	3.9	Fill out tax returns	3.8	Fill out tax returns	3.8	Typewriting	3.7
	78.	Art galleries	3.9	Poetry	3.9	Poetry	3.9	Poetry	3.8
	79.	Fill out tax returns	3.9	Art galleries	3.9	Art galleries	3.9	Art galleries	3.9
	80.	Fire a person	4.1	Fire a person	4.1	Fire a person	4.0	Fire a person	4.1
	81.	Practice music all day	4.2	Practice music all day	4.2	Practice music all day	4.2	Practice music all day	4.2
	82.	Fortunetelling	4.4	Fortunetelling	4.4	Fortunetelling	4.4	Fortunetelling	4.5
	83.	Wash and iron clothes	4.6	Wash and iron clothes	4.6	Wash and iron clothes	4.6	Wash and iron clothes	4.7

GIRLS

	Rank[a] Order	9th Grade	Mean	10th Grade	Mean	11th Grade	Mean	12th Grade	Mean
Like Most	1.	Save money	1.7	Save money	1.7	Save money	1.6	Save money	1.6
	2.	Swimming	1.8	Swimming	1.8	Help the poor	1.8	Help the poor	1.7
	3.	Help the poor	1.8	Help the poor	1.8	Swimming	1.8	Swimming	1.9
	4.	Help your parents	2.0	Become millionaire	2.0	Become millionaire	1.9	Become millionaire	1.9
	5.	Become millionaire	2.0	Help your parents	2.0	Help your parents	2.0	Teach children	1.9
	6.	Typewriting	2.1	Teach children	2.1	Work for myself	2.0	Help your parents	2.0
	7.	Teach children	2.1	Care for family	2.2	Teach children	2.1	Work for myself	2.0
	8.	Care for family	2.2	Typewriting	2.2	Typewriting	2.1	Care for family	2.1
	9.	Watch TV	2.3	Work for myself	2.2	Care for family	2.2	Typewriting	2.2
	10.	Basketball	2.6	Watch TV	2.4	Own your own business	2.3	Own your own business	2.2
Like Least	74.	Operate farm machinery	4.3	Operate farm machinery	4.2	Operate a power machine	4.2	Operate a power machine	4.1
	75.	Fortunetelling	4.3	Operate power machine	4.3	Operate farm machinery	4.2	Fix furniture	4.1
	76.	Operate a power machine	4.3	Do odd jobs with small tools	4.3	Do odd jobs with small tools	4.2	Operate farm machinery	4.2
	77.	Do odd jobs with small tools	4.3	Repair an auto	4.3	Fix furniture	4.2	Repair an auto	4.2
	78.	Fix furniture	4.3	Fortunetelling	4.3	Repair an auto	4.3	Do odd jobs with small tools	4.2
	79.	Repair an auto	4.4	Fix furniture	4.3	Fortunetelling	4.3	Fortunetelling	4.3
	80.	Operate crane or derrick	4.5	Fire a person	4.5	Work on an auto assembly line	4.5	Work on an auto assembly line	4.4
	81.	Fire a person	4.5	Work on an auto assembly line	4.5	Operate crane or derrick	4.5	Operate crane or derrick	4.5
	82.	Work on an auto assembly line	4.5	Operate crane or derrick	4.6	Work in a steel mill	4.5	Work in a steel mill	4.6
	83.	Work in a steel mill	4.5	Work in a steel mill	4.6	Fire a person	4.6	Fire a person	4.6

[a] Based on means carried to the third decimal place. For a description of the sample, see note 2 to Appendix F.

interests in clerical tasks (typewriting), and in helping other people, as in helping the poor, teaching children, helping their parents, and caring for their families. The ten activities that girls like least center around mechanical work and hard labor.

Table 6-5 shows the items in the Interest Inventory for which the mean choice value decreased by .3 point or more between grades 9 and 12 among either the boys or the girls, or both. There were no items for which an increase of as much as .3 point took place between grades 9 and 12. The items are grouped in Table 6-5 by fields of interest.

A larger percentage of the items in some fields than in others showed decreases of .3 point or more. Among the boys, the fields in which the largest percentages of items showed such decreases were: business management, 56 per cent; computation, 50 per cent; artistic, 43 per cent; and sales, 33 per cent. Among the girls, the analogous fields were: artistic, 71 per cent; musical, 60 per cent; business management, 50 per cent; and literary-linguistic, 44 per cent. These are the fields in which there is the most noticeable trend toward greater interest during the high-school years. The trends are reasonable for students whose interests are becoming more mature and more realistic.

Table 6-6 shows data pertaining to the 17 scales derived from the final form of the Student Interest Inventory. It should be noted that the values assigned to the choices were quite different from those used to obtain the item scores shown in Tables 6-2 through 6-5. In this case, choice A (I would like this very much.) was assigned a value of 4; B, 3; C, 2; D, 1; and E (I would dislike this very much.), 0. Therefore, the higher the score in Table 6-6 the more interested the pupils.

For most of the scales, the boys obtained higher mean scores; only in the case of the Literary-Linguistic, Social Service, Office Work, Artistic, and Musical Scales did the girls obtain the higher means. These results were in line with a priori expectations.

In terms of absolute comparisons, the boys obtained mean scores closer to choice D (I would dislike this a little.) than to choice C (Indifferent or don't know much about it.) on the Musical, Office Work, Skilled Trades, and Labor Scales. The girls obtained mean scores of this type on the Public Service, Mechanical-Technical, Skilled Trades, Farming, and Labor Scales. The boys obtained mean scores closer to choice B (I would like this fairly well.) than to choice C on the Sports and on the Hunting and Fishing Scales. The girls obtained a mean score of this type on the Social Service Scale. On all other scales both boys and girls obtained mean scores within the limits of choice C (the "indifferent" category).

It is a little disturbing to find that the average scores of both boys and of girls on the Public Service Scale were below the center of the "indifferent" range. The lack of interest in the sciences and in

TABLE 6-5

Mean Choice Values of Interest Inventory Items For Boys and For Girls Showing a Decrease of 0.3 Point or More Between Grades 9 and 12[a/]

Field and Item	Mean Choice Value			
	Boys		Girls	
	Grade 9	Grade 12	Grade 9	Grade 12
Physical Science:				
Mining engineer	3.1	2.8	---	---
Play chess	---	---	3.8	3.5
Solve puzzles	---	---	3.3	3.0
Biological Science:				
Study muscles and nerves	---	---	3.7	3.4
Physiology	---	---	3.6	3.2
Learn about diseases	---	---	2.9	2.5
Public Service:				
Judge	3.3	3.0	3.8	3.5
U. S. Senator	---	---	3.9	3.6
U. S. Congressman	3.3	3.0	4.0	3.7
Public administrator	3.5	3.2	3.9	3.6
Literary-Linguistic:				
Foreign Correspondent	3.2	2.9	2.8	2.4
Author of a novel	3.4	3.1	---	---
Interpreter	---	---	3.2	2.8
College professor	3.5	3.2	3.7	3.3
Poet	---	---	3.7	3.4
Reading	3.4	3.1	2.6	2.3
Literature	---	---	3.1	2.8
Poetry	---	---	3.4	3.1
Social Service:				
Social worker	---	---	2.4	2.1
Clergyman	---	---	4.0	3.6
Guidance counselor	3.6	3.3	3.0	2.5
High-school teacher	3.7	3.3	---	---
School principal	3.7	3.4	---	---
Artistic:				
Sculptor	---	---	3.7	3.4
Architect	3.0	2.6	3.5	3.1
Decorator	3.6	3.2	2.4	2.0
Artist	---	---	3.1	2.8
Designer	3.3	2.9	2.5	2.2
Musical:				
Musician	3.5	3.2	---	---
Musical composer	---	---	3.3	3.0
Symphony concerts	---	---	3.5	3.0
Play an instrument	---	---	2.9	2.6

TABLE 6-5 (continued)

Field and Item	Mean Choice Value			
	Boys		Girls	
	Grade 9	Grade 12	Grade 9	Grade 12
Sports:				
Football	---	---	3.6	3.3
Outdoor Recreation				
Fishing	---	---	3.4	3.1
Business-Management:				
Personnel administrator	3.4	3.1	3.3	2.8
President of a large company	2.7	2.3	---	---
Office manager	3.1	2.8	3.3	2.8
Banker	3.2	2.9	3.4	3.1
Plan work for other people	3.6	3.3	3.4	3.1
Hire a person	---	---	2.9	2.6
Give orders to workers in a factory	3.0	2.7	---	---
Direct people	3.4	3.1	3.4	3.1
Arrange a strike settlement with management	3.6	3.2	4.1	3.8
Sales:				
Real estate agent	3.5	3.2	3.9	3.5
Salesman	3.7	3.4	---	---
Sell merchandise to stores	---	---	3.4	3.1
Computation:				
Bookkeeper	3.6	3.3	---	---
Bank teller	---	---	3.2	2.9
Certified public accountant	3.6	3.2	3.8	3.3
Accountant or auditor	3.6	3.3	3.6	3.2
Make out income tax returns	3.9	3.6	4.1	3.8
Prepare cost estimates	3.6	3.3	---	---
Operate a calculating machine	---	---	3.9	3.3
Office Work:				
Do clerical work	---	---	3.3	2.7
Mechanical-Technical:				
Technician	---	---	3.7	3.2
Laboratory technician	---	---	3.5	3.0
Fix a clock	---	---	4.2	3.9
Skilled Trades:				
Dietitian	---	---	3.3	2.9
Fix furniture	---	---	4.4	4.1
Farming	---	---	---	---
Labor	---	---	---	---

TABLE 6-5 (continued)

Field and Item	Mean Choice Value			
	Boys		Girls	
	Grade 9	Grade 12	Grade 9	Grade 12
Miscellaneous: "non-core items"				
Aviator	---	---	3.6	3.3
Credit manager	3.5	3.2	3.4	3.1
Pharmacist	---	---	3.6	3.3
Draftsman	3.3	2.9	---	---
Psychologist	3.5	3.2	3.5	2.8
Own your own business	---	---	2.5	2.2
Sociology	---	---	3.3	2.7
Work for myself	2.1	1.8	2.3	2.0
Buy stocks	2.9	2.6	3.4	2.9
Sell tickets for a railroad or airline	---	---	3.4	3.0
Invest money	---	---	2.9	2.5
Exploring	---	---	2.8	2.5

[a] There were no items for which the mean choice value increased by as much as 0.3 point between grades 9 and 12. For the sample used, see note 2 to Appendix F.

TABLE 6-6

Means, Standard Deviations, and Other Data Pertaining to Seventeen Interest Inventory Scales Among Twelfth-Grade Boys and Girls[a]

Interest Inventory Scale	Code No.	Mean or S.D.	Boys (N=1,088)	Girls (N=1,185)	Number of Items Scored	Indifferent Score[b]
Physical Science	F*-701	M	34.2	20.4	16	32
		SD	14.04	12.63		
Biological Science	F*-702	M	15.1	14.0	8	16
		SD	7.77	8.38		
Public Service	F*-703	M	20.7	14.2	11	22
		SD	12.87	12.41		
Literary-Linguistic	F*-704	M	26.4	35.2	16	32
		SD	13.56	14.53		
Social Service	F*-705	M	20.1	30.1	12	24
		SD	8.97	8.74		
Artistic	F*-706	M	12.3	15.5	7	14
		SD	6.26	7.01		
Musical	F*-707	M	7.4	9.8	5	10
		SD	5.19	5.63		
Sports	F*-708	M	21.1	16.2	8	16
		SD	7.10	7.49		
Hunting and fishing	F*-709	M	8.0	4.7	3	6
		SD	2.90	3.32		
Business-Management	F*-710	M	29.2	24.2	14	28
		SD	10.10	10.75		
Sales	F*-711	M	10.7	8.9	6	12
		SD	5.29	5.26		
Computation	F*-712	M	17.5	17.1	10	20
		SD	8.70	9.12		
Office work	F*-713	M	9.3	17.0	7	14
		SD	5.71	7.00		
Mechanical-Technical	F*-714	M	30.8	13.6	15	30
		SD	12.33	9.17		
Skilled Trades	F*-715	M	24.7	16.1	18	36
		SD	12.80	9.53		
Farming	F*-716	M	14.1	10.1	7	14
		SD	6.83	6.50		
Labor	F*-717	M	12.1	7.7	10	20
		SD	6.44	5.60		

[a] The data are based on a 4-per-cent sample of the cases on the 1963 Project TALENT master tape. Scoring of the scales is done by assigning the following weights to item choices: A=4; B=3; C=2; D=1; E=0.

[b] Obtained by multiplying the number of items in the scale by 2, the value assigned to choice C ("Indifferent or don't know much about it") in scoring the 17 scales in the final form of the Interest Inventory. See note 3 to Appendix F.

the skilled trades may also be worrisome and should perhaps stimulate investigations of the reasons and remedies for the situation.

The intercorrelations of the 17 scales in the final form of the Interest Inventory are shown in Table 6-7. The variables appear to group themselves into five principal clusters of interests, as follows: 1) Scientific, 2) Cultural, 3) Mechanical-Physical Labor, 4) Business-Sales-Office Work, and 5) Public and Social Service. These clusters are not entirely the same for boys as for girls. Among the latter, the Office Work Scale has negative correlations with several of the others and shows low correlations with the Sales and Business-Management Scales. The Business-Sales-Office Work clusters are not the same, therefore, for boys and for girls.

Needed Research

The Interest Inventory was originally included in the Project TALENT battery to permit studies of the extent to which scores on the scales derived from it are of value in predicting choice of a major field in college, the degree plans of college students, and entry into occupational fields. Preliminary data that are not yet available for publication suggest that the scores are indeed significantly related to the first two of these. Additional studies are needed to take full advantage of the data now in the files.

Summary

The Project TALENT test battery included an Interest Inventory made up of 205 items pertaining to 122 occupations and 83 activities. For each occupation or activity specified in an item the examinee indicated whether he would like it very much, would like it fairly well, felt indifferent or uninformed about it, would dislike it a little, or would dislike it very much. The directions emphasized that he should respond as though he had the required training and experience and without regard to salary, social prestige, etc.

The data derived from administering the Interest Inventory have been handled in three ways: First, the mean degree of liking (on a scale from 1 to 5) for each occupation and activity was computed for boys and for girls in grades 9 through 12 (Tables 6-3 and 6-4). Second, the per cent of boys and of girls in grade 12 who indicated each degree of liking for each occupation and activity was obtained (Table 6-2). Third, 17 groups of items chosen on an a priori basis were selected to measure the interests listed in Table 6-6. Scores on each interest scale were obtained for each examinee.

The occupations preferred by boys and by girls in grade 12 differ widely. Boys like engineering, science, service in the Armed Forces, and business. Girls like social work, secretarial work, and typing.

TABLE 6-7

Intercorrelations of Seventeen Interest Inventory Scales
Among Males and Among Females in Grade 12[a]

Code	Description	Sex	R-701 Physical Sci.	R-702 Biological Sci.	R-703 Public Service	R-704 Lit.-Ling.	R-705 Social Ser.	R-706 Artistic	R-707 Musical	R-708 Sports	R-709 Outdr.Rec.	R-710 Bus.-Mgt.	R-711 Sales	R-712 Computation	R-713 Office Work	R-714 Mech.-Tech.	R-715 Skilled Trades	R-716 Farming	R-717 Labor
F*-701	Physical Science	M		632	318	420	250	420	195	259	132	307	174	419	182	400	056	080	-029
		F		682	466	465	324	418	366	432	398	376	267	273	-173	645	374	395	256
F*-702	Biological Science	M	632		402	542	447	447	318	264	187	364	261	277	191	175	063	090	011
		F	682		384	454	450	404	336	404	362	272	155	024	-284	439	250	302	121
F*-703	Public Service	M	318	402		610	503	328	289	287	055	618	450	348	240	-019	001	004	015
		F	466	384		569	412	377	299	386	240	625	413	236	-044	366	266	199	173
F*-704	Literary-Linguistic	M	420	542	610		629	635	584	292	050	530	428	347	339	-033	043	038	033
		F	465	454	569		528	672	578	400	300	542	360	088	-116	331	261	306	178
F*-705	Social Service	M	250	447	503	629		405	434	391	123	520	438	380	449	073	224	160	229
		F	324	450	412	528		316	292	327	156	499	310	245	124	243	253	217	208
F*-706	Artistic	M	420	447	328	635	405		525	180	121	344	297	234	267	175	184	126	089
		F	418	404	377	672	316		567	403	377	356	275	-016	-162	342	325	411	182
F*-707	Musical	M	195	318	289	584	434	525		171	028	243	200	137	210	-031	069	077	047
		F	366	336	299	578	292	567		332	284	256	170	-022	-164	274	244	274	142
F*-708	Sports	M	259	264	287	292	391	180	171		378	312	255	214	202	202	213	258	176
		F	432	404	386	400	327	403	332		564	365	247	109	-025	438	395	513	299
F*-709	Outdoor Recreation	M	132	187	055	050	123	121	028	378		113	073	-002	056	308	280	527	255
		F	398	362	240	300	156	377	284	564		201	162	001	-117	431	402	632	310
F*-710	Business-Management	M	307	364	618	530	520	344	243	312	113		687	544	457	163	203	082	243
		F	376	272	625	542	499	356	256	365	201		651	432	238	431	424	222	359
F*-711	Sales	M	174	261	450	428	438	297	200	255	073	687		550	538	142	267	109	285
		F	267	155	413	360	310	275	170	247	162	651		379	224	390	425	224	389
F*-712	Computation	M	419	277	348	347	380	234	137	214	-002	544	550		675	189	189	051	166
		F	273	024	236	088	245	-016	-022	109	001	432	379		591	287	272	066	227
F*-713	Office Work	M	182	191	240	339	449	267	210	202	056	457	538	675		290	443	178	437
		F	-173	-284	-044	-116	124	-162	-164	-025	-117	238	224	591		055	173	-041	173
F*-714	Mechanical-Technical	M	400	175	019	-033	073	175	-031	202	308	163	142	189	290		716	423	544
		F	645	439	366	331	243	342	274	438	431	431	390	287	055		737	507	562
F*-715	Skilled Trades	M	056	063	001	043	224	184	069	213	280	203	267	189	443	716		550	808
		F	374	250	266	261	253	325	244	395	402	424	425	272	173	737		568	741
F*-716	Farming	M	080	090	004	038	160	126	077	258	527	082	109	051	178	423	550		485
		F	395	302	199	306	217	411	274	513	632	222	224	066	-041	507	568		492
F*-717	Labor	M	-029	011	015	033	229	089	047	176	255	243	285	166	437	544	808	485	
		F	256	121	173	178	208	182	142	299	310	359	389	227	173	562	741	492	

a/Four-Per-Cent Sample. Note: Decimal points omitted. See note 2 to Appendix F.

The boys' preferences appear to center around three themes: the masculine hero appeal, a drive for money and power, and science and technology. The girls' preferences relate to four themes: homemaking and motherhood, glamor and adventure, social service, and making a living.

Changes in the occupational preferences of boys and of girls from grade 9 to grade 12 are shown in Table 6-3. An increase in sophistication with respect to the nature of the jobs and of the incomes they provide is reflected in these changes. The drive for money and power among boys increases from grade 9 through 12.

The ten activities liked the most and the least by boys and by girls in grades 9-12 are shown in Table 6-4. Sports are of prime interest to boys. They also want to "become millionaires" and to own their own businesses. Cultural activities do not appeal to them. Neither does clerical work. Among girls, only one sport--swimming--is a favorite activity. Unlike the boys, they are interested in clerical tasks and in helping other people. The activities they like least center around mechanical work and hard manual labor.

The intercorrelations of the 17 interest scales suggest the presence of five principal clusters: Scientific, Cultural, Mechanical-Physical Labor, Business-Sales-Office Work, and Public and Social Service.

Further research on the predictive validity of the interest scales for choice of and performance in vocations will be of great concern to counselors and educators.

Chapter 7

SOME PERSONAL CHARACTERISTICS OF AMERICAN YOUTH

Personality Scales

We tend to think of talents in terms of cognitive abilities, but many factors influence their utilization. Among these are the personal characteristics of the individual. For this reason, Project TALENT devoted considerable time and effort to the assessment of personal characteristics of high-school students through the use of noncognitive inventories, such as a personality measure called the Student Activities Inventory (SAI), an Interest Inventory (I I), and a Student Information Blank (SIB). This chapter is concerned with the personality scales in the Student Activities Inventory and their relationships to some of the cognitive measures and to some other personal variables.

One purpose of including a personality inventory in the Project TALENT battery was to gather information about how personality differences help to account for differences in the accomplishments of equally talented people. No attempt has been made to diagnose or measure severe personality disorders. On the contrary, the inventory was intended for normal individuals in an effort to provide information about the way people use their talents and abilities. Another purpose was to obtain information about the employability of individuals with low academic aptitude. There is evidence to suggest that the employability of such individuals depends to a considerable extent on their personality traits. Jobs that do not demand a high level of academic aptitude nonetheless often require their holders to be mature, self-controlled, vigorous, etc.

For measuring personality traits in the Project TALENT battery, recommendations of consultants and conclusions suggested by a historical review of personality measurement were followed. Personality was defined for purposes of measurement as "personal characteristics, as indicated by the things a person does and his usual way of doing them." On the basis of this definition, the Project TALENT Student Activities Inventory was constructed. In brief, previous work in personality measurement plus careful theoretical analysis provided a foundation for defining a number of narrow, but relatively homogeneous, aspects of the behavior of high-school students. These were not designed to cover all of the activities of high-school students but merely to sample these activities. Each trait was defined by grouping adjectives that describe similar types of behavior. For example, a trait such as impulsiveness is typified by "hasty," "impulsive," "rash," etc.

Item statements were usually derived from such adjectives; the adjective "calm" might lead to the statements, "I am usually calm," "I rarely lose my temper," or "I get easily upset." A group of such statements formed the basis for measuring each trait. The students responded to the item statements in accord with the following directions:

> "Regarding the things I do and the way I do them, this statement describes me
>
> A. extremely well.
> B. quite well.
> C. fairly well.
> D. slightly.
> E. not very well."

Twenty preliminary scales were tried out, combined, and refined. Reliabilities were obtained for the preliminary scales by dividing each scale into a priori halves and correlating the half-test scores. These are presented in Table 7-1 for each of the preliminary scales. They are not high, but it must be remembered that the half-test scores that were intercorrelated were very short and not wholly equivalent in content. The reliability coefficients of the final scales are probably considerably better, though it has not been possible so far to check on this point. Table 7-1 also shows the composition of the final scales and how they were derived from the preliminary scales. All of the final SAI scales are shown in Appendix G, along with a key for each item. A more complete description of the development of the SAI scales may be found in the first report of this series.[1]

Unless otherwise noted, the data presented in this chapter are for a 10-per-cent national subsample (TALENT Subsample A-10.0-3) of public, private, and parochial twelfth-grade students, boys and girls separately. Analyses were run for ninth graders as well, but careful investigation suggested that these correlations might have been affected by the occasional failure of the ninth graders to finish the test. Speed of comprehension in reading undoubtedly influenced the SAI scores. Among ninth-grade students, its effect was to produce a positive relationship between these scales and the cognitive measures of aptitude and achievement. The scores of twelfth-grade students did not appear to have been seriously affected.

Before the intercorrelations are presented, it should be made clear that the number of cases is so large that any coefficient greater than about .04 may be regarded as significantly different from zero at the .05 level. It must be recognized that the relatively low reliability coefficients of the scales themselves preclude their being highly intercorrelated.

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[1] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U.S. Office of Education, Cooperative Research Project No. 635. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960.

TABLE 7-1

Preliminary Scales, Reliabilities, and Final Scales
For the Student Activities Inventory

	Preliminary Scale	No.of Items	r_{11} [a]	Final Scale	No.of Items
1.	Leadership	3	.403	Leadership	5
2.	Vigor	8	.687	Vigor	7
3.	Productivity	4	.458	Mature Personality [b]	24
4.	Tidiness	9	.687	Tidiness	11
5.	Sociability	8	.588	Sociability	12
6.	Self-Confidence	6	.337	Self-Confidence	12
7.	Cheerfulness	7	.486	(Combined with Sociability)	[c]
8.	Manners	8	.645	(Combined with Culture)	[c]
9.	Talkativeness	5	.213	Dropped	[c]
10.	Impulsiveness	5	.329	Impulsiveness	9
11.	Persistence	5	.370	[b]	[c]
12.	Calmness	9	.715	Calmness	9
13.	Social Adjustment	7	.512	[b]	[c]
14.	Theoreticality	7	.304	Theoreticality [d]	8
15.	Responsibility	8	.589	[b]	[c]
16.	Social Sensitivity	8	.491	Social Sensitivity	9
17.	Group Centeredness	6	.462	Group Centeredness [d]	6
18.	Conventionality	5	.124	Conventionality [d]	7
19.	Bossiness	9	.133	(Combined with Leadership)	0
20.	Culture	7	.561	Culture	10
	Unscored	16		Unscored	21

[a] N = 623; corrected by Spearman-Brown formula.

[b] Mature Personality was formed from Productivity, Persistence, Social Adjustment, and Responsibility.

[c] Dropped.

[d] Not yet analyzed.

Intercorrelations of the SAI Scales

Table 7-2 shows the intercorrelations, means, and standard deviations for the ten scales among twelfth-grade boys and among twelfth-grade girls. On no scale did the boys' mean score exceed that of the girls' by any considerable amount, but the girls' means exceeded the boys' means by more than half a point on four of the ten scales. These mean differences were as follows: Social Sensitivity, 1.13; Tidiness, 1.01; Culture, 1.38; and Mature Personality, .83. Thus, girls tended to respond positively more often than boys to items such as "I never hurt another person's feelings if I can avoid it," "I am neat," "I tend to have good taste," "I am hardworking," and "I do my job even if I don't like it."

These findings tend to confirm the popular conception that high-school girls are somewhat better behaved, better mannered, more sensitive, and more sociable than high-school boys. The Mature Personality Scale measures largely attitude toward assigned tasks and self-discipline, and the students' scores on this scale support the common observation that girls take their school assignments more seriously than boys.

With respect to variability on these scales, there is little difference between boys and girls. The same is apparently true of the intercorrelations themselves with the possible exceptions of the correlations of Social Sensitivity with Leadership and of Vigor with Tidiness and with Mature Personality. These relationships are higher among boys than among girls.

The intercorrelations of the scales, which are of moderate size, may be compared with their reliability coefficients. Although these coefficients are relatively crude estimates and are almost certainly underestimates, the comparison is of interest. The median intercorrelation for each of the scales is shown in Table 7-2. In general, the rank order of these medians is similar for males and for females, again indicating a lack of sex differences in these relationships. However, the rank order of these medians differs considerably from the rank order of the scale reliabilities, thus suggesting that the average size of the intercorrelations of a scale is not strictly a function of scale reliability. Nevertheless, the Social Sensitivity Scale correlates with the Sociability, Calmness, Culture, Leadership, and Mature Personality Scales to an extent approaching its reliability. Mature Personality, in turn, has high correlations with Culture, Leadership, and Self-Confidence. It is possible that these intercorrelations represent something of a broad personality factor underlying the scales, perhaps a "social-integration" factor reflecting the ability to function well in society.

Though the composition of the scales was based on *a priori* considerations, uniqueness estimates were computed in the analyses of preliminary versions and the final scales were selected in terms of their uniqueness,

TABLE 7-2

Intercorrelations, Means, and Standard Deviations of the Student Activities Inventory Scales[a]

	Sociability	Social Sensitivity	Impulsiveness	Vigor	Calmness	Tidiness	Culture	Leadership	Self-Confidence	Mature Personality	Median Inter-Correlation	Mean[b]	Standard Deviation
Sociability (R-601)		538	207	481	435	400	444	374	370	391	400	6.81	2.99
		462	212	495	380	318	372	289	433	359	372	7.27	2.90
Social Sensitivity (R-602)			183	479	572	497	508	474	333	554	497	4.54	2.40
			119	348	524	462	570	346	286	513	462	5.67	2.23
Impulsiveness (R-603)				213	051	021	150	229	099	138	150	2.02	1.69
				239	074	016	148	241	157	142	148	1.98	1.70
Vigor (R-604)					451	404	430	431	343	556	431	3.92	2.16
					369	290	391	398	383	454	369	3.73	2.18
Calmness (R-605)						535	534	412	442	567	451	4.67	2.51
						478	516	352	411	532	411	4.95	2.51
Tidiness (R-606)							559	322	321	602	404	5.69	2.85
							543	266	255	567	318	6.70	2.73
Culture (R-607)								453	327	556	453	4.92	2.46
								390	329	517	391	6.30	2.19
Leadership (R-608)									386	514	412	1.50	1.47
									385	499	352	1.38	1.43
Self-Confidence (R-609)										451	343	5.65	2.61
										426	383	5.55	2.70
Mature Personality (R-610)											554	11.94	5.39
											499	12.77	5.17

[a] Based on twelfth-grade pupils in Subsample B-04.0(.80)-25. See Appendix A.1. For males, N=1,088; for females, N=1,185. The top entry in each cell in the table is based on males; the bottom entry, on females.

[b] The higher the score, the greater the amount of the characteristic specified.

their homogeneity, and the suitability of their item statistics. This process should have reduced the intercorrelations of the final scales; whether it has will show up in future analyses. It is expected that empirical data will permit the construction of new scales and lead to factor analyses of their correlation matrices.

Correlations of Personality Scales With Aptitude and Achievement Tests

Table 7-3 presents the correlations of the SAI scales and school marks with scores on selected achievement and aptitude tests. Means and standard deviations are also shown. The data are provided for boys and for girls separately.

Boys

Among boys, four of the SAI scales (Social Sensitivity, Calmness, Self-Confidence, and Mature Personality) tended to have higher correlations with the achievement and aptitude scores than did other scales. There were, however, significant correlations of .21 between Vigor and Sports Information, .15 between Culture and Music Information, .17 between Sociability and Sports Information, .18 between Leadership and Sports Information, and .20 between Impulsiveness and Preferences. It should be noted that the Preferences Test was intended to be a speed-of-decision-making test rather than an actual measure of personal preferences. All of the relationships just mentioned were in the expected directions and appeared to be consistent with the hypotheses that underlay the construction of the personality scales.

The correlations of the cognitive tests with Calmness suggest that there may be an underlying positive relationship between what is measured by this scale (in responses to items like "I am even-tempered," "I am calm," "I don't often lose my temper,") and the cognitive tests in general. With the exception of the highly speeded tests like Table Reading, Clerical Checking, and Object Inspection, the correlations of every cognitive test with this scale were significant at the .01 level; they ranged from .13 to .23. The same was true for the Self-Confidence Scale (comprised of items like "I am confident," "I enjoy speaking to a club group on a subject I know well," "I am usually at ease".) and for the Mature Personality Scale (comprised of items like "I make good use of all my time," "I do my job even when I don't like it," "I do things the best I know how, even if no one checks up on me," "I am dependable."), for which correlations, again excepting the highly speeded tests, ran from .10 to .19.

Data pertaining to two types of school marks are included in Table 7-3. These are estimated grades,--averages of over-all school marks reported by the students themselves and composite grades obtained by summing students' reports of grades in several specific course areas. (Student Information Blank Items 106, 107, 108, 109, and 110). Measured in these ways, the school marks do not have much higher correlations

TABLE 7-3

Correlations, Means, and Standard Deviations of SAI Scales, Grades, and Selected Cognitive Tests[a/]

	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self.Conf. (R-609)	Matr. Pers. (R-610)	Comp.Grades [b/]	Est.Grades [c/]	Miss. Data [d/]	Mean	Standard Deviation
Music	046	132	084	069	151	090	152	127	170	104	124	136	-232	6.58	3.05
Information (R-104)	046	182	122	117	140	057	253	153	128	191	177	222	-273	7.31	2.96
Social Studies	050	130	080	113	191	084	101	119	156	167	197	174	-314	16.86	4.96
Information (R-105)	-028	147	103	086	147	051	201	112	115	226	270	292	-270	14.75	4.95
Sports	174	103	102	213	171	095	095	181	172	111	107	117	-328	8.90	2.81
Information (R-115)	071	096	088	150	107	009	144	134	113	140	171	190	-244	6.03	2.51
Clerical	110	105	131	126	149	136	121	097	131	129	085	051	-337	2.06	0.84
Information (R-141)	127	159	099	105	143	124	132	071	087	163	118	095	-407	2.55	0.68
Theater	086	151	109	103	167	105	144	112	146	146	092	114	-289	4.46	1.77
Information (R-150)	056	168	163	092	131	052	218	110	125	153	134	180	-297	5.03	1.80
Information Total,	041	145	083	122	232	094	118	125	188	202	206	203	-338	153.84	37.64
Part I (R-190)	-028	158	121	119	172	043	229	131	154	257	274	294	-295	131.43	33.93
Information Total,	074	153	072	109	192	105	100	076	155	160	114	114	-279	6.41	2.13
Part II (R-192)	012	166	091	082	139	068	177	094	119	183	192	212	-263	6.51	1.96
Disguised Words	103	148	089	126	157	155	118	098	160	171	135	156	-260	15.70	7.08
(R-220)	103	175	113	146	135	099	200	104	120	201	192	193	-247	17.43	7.00
Word Functions	007	101	005	058	160	091	113	087	132	176	277	262	-194	10.55	5.40
(R-240)	003	133	062	077	129	040	176	104	126	220	273	280	-195	12.02	5.73
Reading Compre-	052	148	056	101	197	099	113	076	166	175	169	137	-315	33.13	10.58
hension (R-250)	-020	155	103	094	122	029	178	083	118	184	232	231	-271	33.52	9.84
Creativity	048	099	043	091	176	071	064	041	149	155	150	115	-237	10.28	4.26
(R-260)	012	110	079	088	110	027	129	074	100	174	190	203	-234	9.23	3.87

TABLE 7-3 (continued)

	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self. Conf. (R-609)	Matr. Pers. (R-610)	Comp. Grades b/	Est. Grades c/	Miss. Data d/	Mean	Standard Deviation
Mechanical Reasoning (R-270)	012 -021	053 073	009 088	064 095	155 084	009 -024	008 089	011 057	104 104	101 120	088 131	080 146	-163 -165	13.41 8.81	4.14 3.61
Abstract Reasoning (R-290)	002 -006	055 108	-035 061	053 089	135 115	063 037	032 131	036 057	097 079	114 139	147 170	117 160	-134 -175	9.64 9.26	3.00 2.95
Math I (R-311)	011 -044	090 094	009 064	072 059	167 110	054 031	054 135	075 078	114 099	164 195	199 253	186 237	-216 -187	9.82 8.76	3.68 3.55
Math II (R-312)	014 -032	083 088	-005 065	084 104	182 124	080 040	079 176	130 119	146 140	190 236	241 276	255 300	-210 -184	12.49 10.29	5.65 4.86
Math III (R-333)	016 -029	074 074	005 048	086 071	173 124	066 028	087 142	164 135	157 117	195 196	262 231	275 261	-188 -150	4.47 3.13	3.11 2.33
Arithmetic Computation (R-410)	098 059	091 049	000 -009	116 090	134 083	120 069	075 093	076 040	105 083	172 155	136 158	098 104	-237 -214	31.77 33.51	20.18 18.26
Table Reading (R-420)	089 091	058 054	041 021	063 071	084 074	096 092	059 056	048 017	089 102	069 090	012 063	046 046	-125 -130	11.56 11.84	11.11 8.17
Clerical Checking (R-430)	120 084	063 078	053 062	110 078	095 111	131 081	086 093	094 044	115 083	108 102	077 096	094 088	-153 -133	26.21 31.83	19.76 18.20
Object Inspection (R-440)	100 083	050 071	056 066	088 101	087 078	103 065	058 094	086 052	088 068	079 068	040 035	066 034	-112 -134	22.24 22.97	8.29 7.53
Preferences Test (R-500)	127 124	057 048	202 122	109 107	092 096	092 064	092 062	099 066	066 079	084 083	043 050	052 048	-240 -208	58.33 57.81	24.75 20.72

a/ The first figure in each pair is for boys, N about 2,940; the second is for girls, N about 3,295. N's differ slightly among the correlations due to occasional missing data. Signs for Composite and Estimated Grades have been reflected so that high grades are positively related to favorable scores on the other variables. Positive relationships with the SAI scales indicate that high scores go with the favorable direction.

b/ Composite Grades are a computer-derived summation of SIB self-reported grades in mathematics, science, foreign language, English, and history and social studies.

c/ Estimated Grades are the students' self-reported estimates of over-all grades since ninth grade.

d/ Missing Data is the number of items omitted of 294 selected SIB items.

with scores on selected achievement and aptitude tests than with scores on the personality scales in the Student Activities Inventory. The correlations of composite grades with scores on the SAI scales are given in Table 7-4. As a matter of fact, for boys a number of the cognitive tests had higher correlations with SAI scales than with either of the two types of grades. These tests are: Music, Sports, Clerical, Theater, Disguised Words, Reading Comprehension, Creativity, Mechanical Reasoning, Arithmetic Computation, and the total scores on the Information Tests, Parts I and II. A partial explanation of these findings may lie in the fact that verbal reasoning ability plays a large role in determining scores on personality scales expressed in verbal terms. It seems likely also that some of the personality traits responsible for high grades and high test scores also are reflected in the correlations of tests and grades with SAI scales. However, it is also possible that boys who are bright enough to get high test scores may be able to make their personality-inventory scores put them in a favorable light.

In Table 7-3 the highest correlations of the aptitude and achievement tests with other variables were with the Missing Data Score. The latter is the number of items omitted out of 294 selected items on the Student Information Blank (Items 1-129 and 210-374). The negative correlations between the Missing Data Score and test scores in Table 7-3 indicate that the better a student's achievement and aptitude, the fewer items he tended to omit when he took the Student Information Blank. Data not shown in Table 7-3 indicate that the correlations of the SAI scales with the Missing Data Scale were low, negative, and significant at the .05 level.

Girls

Among girls, most of the significant correlations between scores on the personality scales and the cognitive tests pertained to scores derived from the Mature Personality Scale, the Culture Scale, and the Social Sensitivity Scale. As might be expected, there were significant positive relationships between scores on the Vigor Scale and the Sports Information Test (.15), on the Culture Scale and the Music Information Test (.25), and on the Culture Scale and the Theater Information Test (.22).

It is interesting to note that the correlations of scores on the Calmness and Self-Confidence Scales with the achievement tests for which data are provided in Table 7-3 tended to be lower among girls than among boys. The stereotyped ideal for the male stresses these personal qualities to a greater extent than does the stereotyped ideal for the female, while Culture and Social Sensitivity are commonly considered more typically female than male.

In general, the achievement and aptitude tests tended to correlate among girls more closely with school marks (represented by composite and estimated grades in Table 7-3) than with scores on the personality scales. As with boys, the cognitive tests had substantial negative correlations with the Missing Data Score, though girls tended to omit fewer items than boys.

TABLE 7-4

Correlations, Means, and Standard Deviations of SAI Scales and School-Related Habits and Attitudes[a/]

Variable[b/]	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self.Conf. (R-609)	Matr. Pers. (R-610)	Comp.Grades	Est. Grades	Miss. Data	Mean	Standard Deviation
1. No reading problems	027 011	086 103	041 076	116 102	169 172	117 107	149 187	139 135	209 234	191 218	165 218	169 211	-164 -134	14.72 15.15	3.50 3.48
2. Effort on studies	052 061	127 089	-106 -086	134 114	198 196	281 246	189 189	131 080	198 176	313 335	226 206	206 194	-086 -103	20.71 22.91	3.63 3.04
3. Good grammar	059 090	170 214	035 080	113 176	162 196	223 141	250 266	218 229	239 275	231 278	209 215	212 217	-103 -093	12.14 13.47	3.51 3.58
4. Good work habits	076 079	181 194	-037 -004	190 137	222 231	249 224	203 250	226 188	255 240	334 353	231 291	201 263	-135 -149	10.85 11.35	2.31 2.27
5. Interest and attention to studies	010 059	112 140	-120 -095	103 104	209 232	199 213	164 203	138 114	234 216	288 355	249 287	230 257	-072 -101	14.01 15.71	3.51 3.05
6. Number of books read in past year	010 -062	097 053	093 106	097 065	135 084	089 002	165 143	088 084	124 131	141 139	112 121	079 122	-117 -106	2.73 3.02	1.45 1.46
7. Do just enough to get by	002 -034	-053 -066	119 108	-084 -075	-125 -160	-168 -173	-152 -153	-123 -078	-147 -167	-228 -294	-258 -244	-239 -231	047 066	3.04 2.35	1.35 1.22
8. Composite grades	047 006	078 082	021 -010	113 089	144 139	141 144	161 136	214 184	153 141	266 317	1000 1000	637 673	-072 -068	16.76 15.45	4.69 4.57
9. Criticized for sloppy assignment	-045 -032	-138 -073	075 061	-105 -021	-171 -090	-257 -189	-150 -101	-077 -029	-143 -097	-213 -155	-125 -087	-112 -070	017 042	1.84 1.32	0.98 0.69
10. Trouble concentrating	-003 -004	-053 -088	056 057	-091 -078	-139 -193	-108 -145	-124 -168	-114 -117	-226 -238	-201 -253	-168 -196	-182 -180	057 026	2.84 2.63	1.16 1.09
11. Trouble expressing self	-075 -086	-155 -159	-033 -084	-119 -145	-145 -165	-147 -088	-194 -225	-190 -207	-241 -267	-206 -214	-170 -183	-170 -180	077 072	2.66 2.67	1.26 1.26
12. Keep up-to-date on assignments	039 061	112 073	-073 -105	106 090	167 160	239 249	131 127	109 048	115 086	279 289	180 193	145 162	-056 -051	2.44 1.95	1.11 0.99

TABLE 7-4 (continued)

[a] The first figure in each pair is for boys, N about 2,940; the second is for girls, N about 3,295. N's differ slightly among the correlations due to occasional missing data. Positive values indicate that favorable scores go with favorable scores. All values to thousandths, decimal points and preceding zeros omitted.

[b] See Appendix K for exact wording of items in the Student Information Blank. Composition of these variables is as follows:

1. No reading problems: SIB items 67, 83, 84, 87, and 89
2. Effort on studies: SIB items 65, 74, 77, 78, 81, and 88
3. Good grammar and expression: SIB items 66, 72, 79, and 82
4. Good work habits: SIB items 69, 70, and 86
5. Interest and attention to studies: SIB items 71, 73, 76, and 80
6. Number of books read in year: SIB item 56
7. Do just enough to get by: SIB item 78
8. Composite grades: SIB items 106-110
9. Have been criticized for sloppy assignments: SIB item 77
10. Can't concentrate: SIB item 87
11. Have trouble expressing myself: SIB item 66
12. Get behind in school assignments: SIB item 81

Correlations of School Marks With Scores on Achievement and Aptitude Tests

The fact that the correlations reported in Table 7-3 between school marks (represented by composite and estimated grades) and a variety of achievement and aptitude tests were relatively low makes some comment on this point advisable. First, it must be recalled that many of the tests were short and therefore rather unreliable. However, Reading Comprehension (R-250) and total scores based on Parts I and II of the Information Test (R-190 and R-192) are highly reliable; yet scores on these tests had rather low correlations with the composite and estimated grades (when all schools were combined). Obviously, some factor other than lack of reliability is responsible for their low correlations with school marks.

Second, the school marks were obtained from the reports of the students themselves. The process was described briefly above. Self-reported marks are probably more accurate than would at first thought be supposed. Nonetheless, some students may have been generous with themselves when they reported their marks, thus increasing the average self-reported mark and decreasing the variability of such marks. The resulting restriction of range would tend to reduce their correlations with other variables.

Third, variations in marking standards from school to school, and even from teacher to teacher, cause correlations of grades to take low values. Within-schools correlations of several Project TALENT achievement tests and school marks have been found to be as high as .6 to .7.

Fourth, school marks are often based as much on personality traits and relationships with teachers as they are on amount learned or amount known of the subject matter presumably being measured. Our data indicate that scores on many SAI personality scales have significant positive correlations with self-reported school marks. These data are shown in Table 7-4. The highest correlations were between composite grades and scores on the Mature Personality Scale for boys and for girls. These coefficients were .27 and .32, respectively. The Leadership Scale correlated .21 and .18 with grades for boys and girls, respectively. The personal qualities implied by high scores on the Mature Personality Scale and on the Leadership Scale are ones that everyone believes most teachers find pleasing in their students. One may hypothesize that the qualities implied by high scores on the Impulsiveness Scale are disagreeable to most teachers. A glance at Table 7-4 indicates that scores on this scale correlated .02 and -.01 among boys and girls, respectively, with composite grades. These coefficients were the lowest of any between SAI scales and grades, thus supporting our hypothesis. The implication is obvious that grades are partly reflections of student-teacher personal relationships.

Correlations of School-Related Habits and Attitudes With Personality Traits and School Marks

The correlations of the ten personality scales in the Student Information Blank and of school marks (represented by composite and estimated grades) with several composite variables based on student responses to questions in the Student Information Blank are shown in Table 7-4. Among boys, the highest correlations with these composites involved the Mature Personality Scale. With this scale, they ranged from .33 for "good work habits" to .19 for "lack of reading problems." The composite scores also showed some appreciable positive correlations with Self-Confidence, Tidiness, Calmness, and Leadership. It is interesting to note that the Tidiness Scale showed a correlation of -.26 with the boys' reports that their teachers had criticized them for sloppy assignments.

Among girls, the composites had correlations with the Mature Personality Scale ranging from .22 (for lack of reading problems) to .36 (for interest and attention). As in the case of the boys, the Self-Confidence, Calmness, and Tidiness Scales were all appreciably related to the composite scores.

Composite grades were most closely correlated with estimated grades, good work habits, interest and attention given to schoolwork, doing enough to get by, and doing more than a course requires. Estimated grades showed a similar pattern of relationships.

In summary, the relationships of the SAI scales to variables associated with reading problems, effort, work habits, and interest and attention are reasonable and suggest that the Mature Personality and Self-Confidence Scales are those most closely related to these variables. Mature Personality seems to be slightly more highly correlated with these variables among girls than among boys. The Tidiness Scale had an expected significant positive relationship to particular items involving tidiness. In general, the patterns of relationships seem to be essentially the same for girls as they are for boys.

Relationships Between Personality Scales and Educational Variables

In the Student Information Blank, students answered questions about when they planned to enter college, whether they expected definitely to attend college, the amounts of education they and their friends expected to obtain, the amounts of education they thought their parents expected them to obtain, the levels of education of their mothers and fathers, the extent of their mothers' participation in PTA activities, and the amounts of time they spent studying. Table 7-5 shows the correlations of these variables with scores on the personality scales in the SAI, with self-reported school marks, and with the Missing Data Score for the SIB.

For both boys and girls the highest correlations between the personality scales and the students' expectations of attending college at

TABLE 7-5

Correlations, Means, and Standard Deviations for SAI Scales and College Plans and Expectations[a/]

Variable	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self.Conf. (R-609)	Matr. Pers. (R-610)	Comp.Grades	Est. Grades	Miss. Data	Mean	Standard Deviation
College right after high school	094 034	154 127	011 081	130 141	199 137	151 036	236 250	247 236	188 188	187 198	210 162	213 210	-053 -034	3.19 2.66	1.57 1.66
Start college sometime	096 022	151 115	000 065	122 127	165 124	153 025	215 212	236 211	159 157	169 174	190 141	215 201	-058 -047	3.52 2.97	1.76 1.90
Most education students expect	079 013	190 126	010 098	144 141	186 152	161 021	251 261	251 244	188 203	220 223	222 173	237 247	-083 -057	4.15 3.52	1.51 1.38
Education parents want for student	132 056	160 146	040 052	126 135	144 121	113 076	152 198	188 183	150 143	154 174	120 134	138 165	-027 -074	4.18 3.84	1.54 1.46
Most education friends expect to get	115 044	120 101	052 057	090 104	123 098	074 050	132 157	148 142	096 098	117 107	117 098	130 147	-101 -054	3.91 3.81	1.48 1.39
Education of father	021 050	063 113	036 107	042 097	082 105	029 046	080 208	094 157	074 118	043 137	058 084	106 111	-068 -097	4.72 4.62	2.33 2.35
Education of mother	019 073	066 122	037 097	059 118	103 111	050 022	091 185	098 143	080 130	051 132	062 103	057 121	-100 -081	4.72 4.68	1.86 1.84
Mother's activity in PTA	094 118	075 128	048 027	124 136	077 103	088 111	153 202	172 208	107 146	100 174	b/ b/	b/ b/	-030 -048	2.74 2.68	1.68 1.66
Amount of study time	044 011	119 079	040 067	108 080	157 114	182 146	179 133	114 084	123 094	231 234	177 127	182 137	-076 -042	3.33 3.68	1.20 1.19

TABLE 7-5 (continued)

Variable	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self. Conf. (R-609)	Matr. Pers. (R-610)	Comp.Grades	Est. Grades	Miss. Data	Mean	Standard Deviation
Composite Grades	047	078	021	113	144	141	161	214	153	266	1000	637	-072	16.76	4.69
	006	082	-010	089	139	144	136	184	141	317	1000	673	-068	15.45	4.57
Grades in vocational courses	086	109	-007	110	128	177	149	174	151	231	b/	b/	-066	3.92	1.19
	042	138	017	112	185	199	188	195	130	305	b/	b/	-112	4.01	1.16
Grades in business courses	095	121	049	125	138	176	167	187	122	250	b/	b/	-097	3.64	1.21
	077	129	019	134	163	202	177	186	142	297	b/	b/	-133	3.97	1.19
Would borrow to go to college	107	138	027	121	137	136	196	175	118	159	b/	b/	-048	1.30	0.46
	022	099	011	091	104	067	165	147	128	161	b/	b/	-035	1.36	0.48
Feel college necessary for career	079	154	003	121	184	169	213	240	168	205	b/	b/	-011	4.34	1.77
	030	117	059	111	101	040	188	176	137	180	b/	b/	-024	3.84	1.80
Teachers feel should go to college	124	112	010	143	114	149	204	174	073	143	b/	b/	-032	3.22	1.62
	078	096	019	113	108	103	177	182	117	176	b/	b/	-046	2.99	1.61
Go to college for athletics	138	024	027	161	034	053	055	137	027	009	b/	b/	-026	2.48	1.57
	052	-017	050	100	-005	027	003	062	025	002	b/	b/	032	1.73	1.17
Want college because friends go	142	035	036	097	020	066	086	100	-032	018	b/	b/	-015	2.73	1.59
	069	038	063	062	027	043	084	122	009	018	b/	b/	023	2.30	1.48

a/ The first figure in each pair is for boys, N about 2,940; the second is for girls, N about 3,295. N's differ slightly among the correlations due to occasional missing data. Positive relationships with the SAI scales indicate that high scores go with the favorable direction. The higher the mean score, the more the characteristic was displayed.

b/ Not available.

some time or immediately after graduation from high school pertained to scores on the Culture and Leadership Scales; the lowest correlations pertained to the Tidiness, Sociability, and Impulsiveness Scales.

The amount of education that twelfth-grade students expected to obtain was most closely related to scores on the Culture, Leadership, and Mature Personality Scales. The amount of education that the students reported that their parents wanted them to have correlated positively though slightly with scores for most of the personality scales except Impulsiveness and, among girls, Tidiness and Sociability. In general, the personality scales showed little relationship to the amount of education the students' friends expected to obtain.

It is interesting to note that the highest levels of education reached by the students' parents correlated very slightly with scores on the personality scales, but the relationships were higher among girls than among boys, the highest being .18 between mothers' educational level and their daughters' scores on the Culture Scale. The extent of PTA activities of the students' mothers was more closely related to girls' scores on the personality scales than to boys' scores. The Leadership and Culture Scales showed the highest correlations among girls (.21 and .20, respectively). These relationships were all in the expected directions.

Self-reported composite grades and grades in vocational and business courses were more closely related to scores on the Mature Personality Scale than to scores on the other SAI scales (.22-.32). This was also true of the amount of time devoted to studying. Impulsiveness was least related to grades and amount of studying.

The relationships of a number of factors connected with attendance at college with scores on the personality scales were also studied. There was a tendency for students who felt that a college degree is necessary for the kind of work they want to do to have higher-than-average scores on the Culture, Leadership, and Mature Personality Scales. Boys with high scores on the Culture Scale tended to be those who reported that their teachers advised college attendance for them.

There were rather weak relationships between scores on the personality scales and on expectations of getting into college athletics. The highest (.16) was with the scores made by boys on the Vigor Scale. Whether the students' friends were going to college had little relationship to scores on the personality scales.

Relationships of Scores on Personality Scales to Health, Athletics, and Sports Variables

Table 7-6 shows the correlations of the SAI scales with a number of variables related to health, athletics, and sports.

TABLE 7-6

Means, Standard Deviations, and Correlations of SAI Scales With Health and Athletic Variables[a]

Variable	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self Conf. (R-609)	Matr. Pers. (R-610)	Comp. Grades	Est. Grades	Miss. Data	Mean	Standard Deviation
Good health over last three years	190 126	123 075	021 030	284 239	191 152	156 094	119 096	176 099	179 121	213 136	061 094	061 118	-080 -066	5.16 4.93	0.94 1.01
Good health before age ten	102 106	051 064	009 046	152 176	091 101	094 065	058 072	085 080	076 082	088 091	b/ b/	b/ b/	-051 -040	4.77 4.76	1.20 1.18
Greater height	024 036	042 007	036 018	082 056	083 032	034 008	029 011	043 028	108 056	059 041	017 045	024 042	-078 -069	7.00 4.96	1.09 1.09
Greater weight	016 000	036 -035	011 022	033 -030	043 007	017 -107	017 -075	072 024	057 009	042 -011	-004 -028	003 -031	-054 -038	6.95 4.73	1.54 1.23
No hearing loss	049 048	042 057	012 -033	058 014	067 081	035 074	021 064	034 016	093 077	048 052	002 004	016 016	-047 -072	1.94 1.94	0.23 0.24
Don't wear glasses	079 131	007 061	-012 018	065 068	000 031	005 052	-030 047	033 041	009 034	002 -017	-036 -021	-050 -025	016 024	1.82 1.81	0.39 0.39
Play high-school athletics	209 108	072 039	065 048	262 197	083 059	062 024	101 045	236 104	126 101	092 059	048 030	071 061	-066 -033	4.36 2.97	3.17 2.68
Will play college athletics	138 052	024 -017	027 050	161 100	034 -005	053 027	055 033	137 062	027 025	009 002	b/ b/	b/ b/	-026 032	2.48 1.73	1.58 1.17
Play baseball	242 117	100 016	049 024	288 215	113 035	125 009	107 021	198 124	149 068	139 061	b/ b/	b/ b/	-125 -050	3.91 2.86	1.23 1.31
Go hunting and fishing	109 046	024 032	020 055	180 164	063 057	064 016	034 044	014 073	052 062	097 070	b/ b/	b/ b/	-073 -037	3.62 2.04	1.31 1.16
Play golf and tennis	198 202	125 163	069 094	207 258	142 133	125 119	121 189	143 128	156 151	115 133	b/ b/	b/ b/	-118 -156	4.58 4.51	1.28 1.41
Play hockey and box	210 092	095 034	068 022	264 161	100 044	098 017	101 030	194 100	134 067	122 042	b/ b/	b/ b/	-052 -003	3.86 2.06	1.61 1.50
Go bicycling and skating	140 179	093 141	038 085	222 267	117 122	138 117	121 157	131 131	090 128	144 130	b/ b/	b/ b/	084 -128	4.12 4.24	1.50 1.49

[a] The first figure in each pair is for boys, N about 2,940; the second is for girls, N about 3,295. N's differ slightly among the correlations due to occasional missing data. Positive relationships with the SAI scales indicate that high scores go with the favorable direction. The higher the mean score, the more the characteristic was displayed.

[b] Not available.

Boys

As might be expected, the relationship between scores on the Vigor Scale and the boys' state of health (.28) was larger than those between scores on the other personality scales and the same health variable. Sociability, Calmness, Self-Confidence, Leadership, and Mature Personality were next highest with correlations of .18 or more. It is interesting to note that state of health showed little correlation with self-reported grades. Height and weight tended to have little correlation with the personality scales, though there was a small positive correlation among boys between height and self-confidence.

Participation in high-school athletics had a highly significant positive relationship with scores on the Leadership Scale and participation in any one of the sports activities listed in Table 7-6 showed significant correlation with scores on the Vigor Scale.

Girls

For girls, the data in Table 7-6 indicated much the same patterns of relationship between personality scales and health variables as were shown for boys. With regard to athletics and sports, the personality scales tended to have lower correlations with participation in these activities among girls than among boys. The Vigor Scale, however, showed a highly significant correlation with participation in these activities among girls.

Relationships Between Scores on Personality Scales, Cultural Activities, and Characteristics of the Home

Several scores derived from the Student Information Blank concerned the amount and types of cultural activities engaged in by the students. The correlations of a number of these with scores on the personality scales in the Student Activities Inventory are shown in Table 7-7 along with the correlations of various factors related to the home and the personality scales.

Participation in cultural activities was rather strongly related to scores on several of the personality scales, especially to the Culture Scale (.37 and .39 among boys and girls, respectively) and the Mature Personality Scale (.30 and .34 among boys and girls, respectively). The Culture Scale was also more closely related than other scales to cultural background, debating and dramatics, religious activities, drawing and painting, acting and singing, attending concerts, reading plays and classics, interest in political and historical affairs, the number of books in the home, and the availability of music in the home.

Size of the home and the number of persons in it did not seem to be closely related to any of the personality scales or to self-reported grades. Students' reports of total family income likewise seemed to have only small positive correlations with the personality scales and with self-reported grades.

TABLE 7-7

Means, Standard Deviations, and Correlations of SAI Scales With Factors Related to Culture and Culture-Related Activities[a]

Variable	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self. Conf. (R-609)	Matr. Pers. (R-610)	Comp. Grades	Est. Grades	Miss. Data	Mean	Standard Deviation
Cultural activities	154 162	234 261	088 123	195 243	248 247	259 177	371 389	266 320	235 246	300 341	[b] [b]	[b] [b]	-369 -325	15.48 16.92	4.26 4.36
Cultural background	021 024	124 124	067 095	060 094	091 103	061 046	167 210	149 162	096 130	085 116	[b] [b]	[b] [b]	-044 -034	4.65 4.57	1.64 1.57
Debate and dramatics	100 150	145 126	036 040	084 188	116 122	114 074	237 222	192 280	150 179	111 173	[b] [b]	[b] [b]	-025 -038	2.24 2.96	1.78 1.99
Religious activities	189 165	164 141	055 021	173 192	164 151	180 122	217 230	190 233	141 176	166 205	[b] [b]	[b] [b]	-077 -043	3.24 3.77	1.83 1.84
Draw and paint	022 042	057 109	006 061	019 091	008 091	061 058	138 171	065 133	053 115	047 113	[b] [b]	[b] [b]	048 -015	2.26 2.63	1.28 1.34
Acting and singing	135 157	129 145	070 062	089 178	072 107	087 079	206 212	234 274	115 161	074 151	[b] [b]	[b] [b]	021 -034	2.09 2.62	1.31 1.45
Attending concerts	080 115	159 171	029 073	082 141	145 123	140 105	267 286	180 194	148 165	153 178	[b] [b]	[b] [b]	-054 -061	3.28 3.75	1.45 1.42
Non-fiction read	-013 -031	087 020	051 022	049 046	109 059	047 033	095 089	088 059	065 055	114 068	[b] [b]	[b] [b]	-062 010	2.22 1.75	1.61 1.36
Plays and classics	013 -005	143 122	091 101	059 092	082 089	083 012	232 239	144 168	077 138	113 143	[b] [b]	[b] [b]	-044 -026	2.14 2.83	1.56 1.79
Political and historical	056 -020	132 072	090 098	084 074	143 101	086 038	198 189	162 116	111 137	142 140	[b] [b]	[b] [b]	-093 -057	2.53 2.81	1.70 1.75
Books in home	017 022	113 133	050 092	055 087	097 110	056 036	133 197	140 148	118 128	089 116	[b] [b]	[b] [b]	-033 -052	3.29 3.25	1.16 1.17
Music in home	071 060	122 139	072 085	057 112	092 103	110 079	156 207	154 158	098 123	074 116	[b] [b]	[b] [b]	-047 -078	2.79 2.77	1.40 1.35
Size of home	078 060	055 103	058 028	084 093	060 064	051 061	068 119	090 089	075 053	055 077	019 023	004 051	-050 -077	7.15 7.08	1.67 1.54
Number of persons in home	-020 -069	-041 -068	-024 -043	-021 -018	-031 -071	-046 -059	-044 -072	-023 -037	-011 -031	-002 -053	023 -031	-013 -056	046 076	3.89 4.00	1.85 1.84
Student estimate total family income	055 043	070 064	088 067	064 061	085 024	074 012	106 084	191 094	132 070	084 042	042 032	066 051	-013 -082	5.80 3.86	2.70 2.41

[a] The first figure in each pair is for boys, N about 2,940; the second is for girls, N about 3,295. N's differ slightly among the correlations due to occasional missing data. Positive relationships with the SAI scales indicate that high scores go with the favorable direction. The higher the mean score, the more the characteristic was displayed.

[b] Not available.

Relationships Between Scores on Personality Scales and Social Activities

Table 7-8 shows correlation coefficients between scores on the personality scales in the SAI and a variety of variables pertaining to social activities. Inspection of the table reveals relatively few marked sex differences with respect to these variables.

The personality scales that showed the strongest relationships with various social variables were Leadership, Culture, Self-Confidence, and Mature Personality. These scales ranged themselves in that order. Leadership, for example, was rather strongly related (as these coefficients go) to extent of organizational activities and service as a class president or class officer.

Sociability was more closely related than the other scales to the age at which boys and girls began dating. The higher their sociability scores, the lower the ages at which dating began. This scale was also more closely related than others to frequency of dating, the number of times the student has "gone steady" and the age at which he or she learned to dance. None of the personality scales correlated with the age at which the student expected to be married.

Relationships of Scores on the Personality Scales to Expressed Interests

In Table 7-9 are presented correlations of scores in the ten personality scales with scores on 17 Interest Inventory scales. It should be noted that the sample used for computing these coefficients is different from that used in computing the data in preceding matrices in this chapter. The data in Table 7-9 are based on a sample consisting of about 3 per cent of the Project TALENT cases in grade 12.

Boys

Inspection of the coefficients based on boys shows very few reaching values as high as .30. The correlation of scores on the Literary-Linguistic Interests Scale with those on the Culture Scale was .32. Sports interests correlated .35 with scores on the Vigor Scale.

If one glances down the columns, reading from left to right and considering only the coefficients based on the sample of boys, he notes that the Sociability Scale correlated to the greatest degree with interests in business and management and in sports. It also had comparatively high correlations with literary-linguistic and sales interest. The Social Sensitivity Scale correlated highest with social-service, public-service, and biological-science interest. The Impulsiveness Scale was not closely related to any set of interests. The Vigor Scale, as noted, was correlated to the greatest degree with interests in sports.

TABLE 7-8

Means, Standard Deviations, and Correlations of SAI Scales With Social Activity Data[a]

Variable	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self.Conf. (R-609)	Matr.Pers. (R-610)	Comp.Grades	Est.Grades	Miss.Data	Mean	Standard Deviation
Organizational activities	135 199	150 163	084 077	124 232	134 159	140 125	235 260	240 357	138 211	163 241	[b] [b]	[b] [b]	-004 -033	15.42 16.53	5.15 5.04
School clubs	099 086	120 094	057 060	123 129	141 118	148 089	229 174	213 172	154 132	187 161	[b] [b]	[b] [b]	-064 -020	2.05 2.16	1.55 1.62
Debate and dramatics	100 150	145 126	036 040	084 188	116 122	114 074	237 222	192 280	150 179	111 173	[b] [b]	[b] [b]	-025 -038	2.24 2.96	1.79 1.99
Times class, club officer	178 163	151 176	029 035	158 213	165 176	140 098	198 233	321 353	181 213	177 226	[b] [b]	[b] [b]	-040 -054	2.62 3.16	1.66 1.80
Times class, club president	150 074	147 114	036 044	165 145	135 134	116 055	153 159	320 287	138 123	142 135	[b] [b]	[b] [b]	-018 009	1.94 1.98	1.39 1.42
Number of clubs in last 3 years	168 175	146 170	047 078	176 219	167 154	141 102	232 261	294 294	197 217	162 238	176 194	185 207	-084 -123	3.88 4.96	2.38 2.83
Age of first date	-189 -180	-076 -159	-081 -083	-107 -098	-025 -070	-060 -060	-092 -143	-125 -124	-109 -122	-012 -064	010 -004	-006 -010	057 128	2.62 2.62	1.28 1.12
Dating frequency	186 168	061 085	069 053	108 065	008 024	093 098	086 042	129 066	075 071	047 002	-024 -032	-037 -052	-029 -052	2.54 2.86	1.14 1.23
Times "going steady"	133 137	018 083	081 089	035 092	-050 -003	041 025	027 016	083 065	018 046	-014 -032	-046 -077	-047 -086	018 -010	2.13 2.31	1.30 1.29
Age when learned to dance	-149 -160	-106 -084	-040 -079	-083 -121	-069 -031	-105 -071	-132 -108	-134 -124	-092 -102	-042 -052	030 043	-035 028	030 046	5.98 4.54	2.79 2.55
Age expect to marry	-080 -078	016 -030	004 -002	-050 040	011 -004	-018 -079	023 025	-006 040	-016 012	000 052	026 061	063 093	015 064	7.09 5.72	2.02 1.85

[a] The first figure in each pair is for boys, N about 2,940; the second is for girls, N about 3,295. N's differ slightly among the correlations due to occasional missing data. Positive relationships with the SAI scales indicate that high scores go with the favorable direction. The higher the mean score, the more the characteristic was displayed.

[b] Not available.

TABLE 7-9

Means, Standard Deviations, and Correlations of SAI Variables With Interest Variables[a/]

Interest Scale	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self Conf. (R-609)	Matr. Pers. (R-610)	Mean	Standard Deviation
Physical science, engineering, math (F*-701)	061	142	-022	178	227	158	178	168	163	290	34.24	14.04
	-029	052	069	133	104	-008	133	171	131	177	20.39	12.63
Biological science and medicine (F*-702)	128	225	019	195	178	158	247	218	159	243	15.09	7.77
	053	156	027	175	165	030	164	159	145	171	13.95	8.38
Public service (F*-703)	105	230	048	154	194	147	315	278	204	222	26.43	13.56
	036	189	151	135	170	076	288	246	224	266	35.19	14.53
Literary-linguistic (F*-704)	223	178	085	149	155	112	239	274	203	198	20.75	12.87
	070	089	156	139	120	060	165	212	172	169	14.20	12.41
Social service (F*-705)	192	262	-007	186	169	190	294	244	168	230	20.14	8.97
	138	210	-060	148	152	121	203	193	111	216	30.06	8.74
Artistic (F*-706)	040	179	025	084	120	110	280	158	132	130	12.30	6.26
	011	148	128	091	111	035	247	145	109	122	15.51	6.97
Musical (F*-707)	042	209	035	087	143	121	295	172	110	128	7.42	5.19
	010	119	066	115	107	052	238	206	126	174	9.76	5.63
Sports (F*-708)	281	143	023	351	156	099	140	163	164	144	21.06	7.10
	128	061	089	089	087	005	074	143	158	120	16.21	7.49
Hunting and fishing (F*-709)	060	005	-015	165	-005	-029	-027	-036	015	-001	7.98	2.90
	018	024	112	173	072	-060	066	080	060	061	4.72	3.33
Business management (F*-710)	286	203	069	169	150	157	198	234	159	183	29.20	10.06
	143	146	116	145	145	124	161	232	190	221	24.22	10.75

TABLE 7-9 (continued)

Interest Scale	Sociability (R-601)	Soc. Sens. (R-602)	Impulsive. (R-603)	Vigor (R-604)	Calmness (R-605)	Tidiness (R-606)	Culture (R-607)	Leadership (R-608)	Self.Conf. (R-609)	Matr. Pers. (R-610)	Mean	Standard Deviation
Sales (F*-711)	226	142	001	084	083	087	143	110	066	063	10.69	5.29
	075	054	046	053	062	058	067	084	073	073	8.92	5.26
Computation (F*-712)	137	127	-070	101	186	184	151	121	089	196	17.53	8.70
	043	017	-071	046	031	127	-002	066	023	150	17.08	9.13
Office work (F*-713)	074	051	-074	003	064	105	074	008	010	074	9.31	5.71
	091	026	-088	-014	-042	117	-056	-070	-079	029	17.04	7.00
Mechanical-technical (F*-714)	-024	-077	-066	-011	-021	-061	-124	-161	-041	023	30.79	12.33
	-031	-004	068	083	060	-044	022	032	022	083	13.57	9.18
Skilled trades (F*-715)	-083	-121	-061	-050	-107	-139	-162	-162	-117	-105	24.65	12.81
	-063	-027	-010	-008	-005	-034	-031	-024	-046	-002	16.06	9.53
Farming (F*-716)	-061	-049	-041	-093	-018	-096	-063	-076	-077	-010	14.08	6.83
	-099	-025	-016	-094	-028	-088	022	021	-013	044	10.06	6.51
Labor (F*-717)	-055	-105	-032	-071	-133	-158	-173	-151	-121	-122	12.14	6.44
	-069	-057	009	005	-033	-066	-068	-049	-033	-009	7.70	5.60

[a] The first figure in each pair is for boys, N is about 1,088; the second is for girls, N is about 1,185. See footnote a to Table 7-2.

The Calmness Scale was related most closely to interests in physical science. The Tidiness Scale had its highest correlations with interests in computation and social services. The Culture Scale had its closest relationships with interests in public service, social service, music, and art. Scores in Leadership and Self-Confidence are most closely associated with Literary-Linguistic, Public-Service and Social-Service interests. The Mature Personality Scale had its highest correlations with interests in the physical and biological sciences, and with social and public service.

Girls

The patterns of relationships between personality scales and interests were similar among girls and boys, but the coefficients tended to take lower values. Among girls, the correlations of the personality scales with physical-science interests were lower and their correlations with interests in public service, social service, and business management were higher than among boys. For example, among girls the highest correlations between the Leadership and the Self-Confidence Scales were with interests in public service and business management.

Table 7-10 shows the three areas of interest most closely associated with scores on each of the ten personality scales. Some of the scales display identical patterns; several of them yield correlation patterns that suggest rather satisfactory validity for the scales.

Summary

The accomplishments of men and women are commonly attributed to their skills and abilities. Yet personal qualities and personality characteristics play a large part in determining human accomplishments and the utilization of human talent. For this reason, the Project TALENT test battery included a Student Activities Inventory intended to measure personality traits. For purposes of measurement, personality was defined as an individual's personal characteristics -- as revealed by the things he does and the way he does them. A number of traits were defined and adjectives descriptive of them were assembled. An examinee responded to 150 statements, such as "People consider me bold," by indicating whether each statement described him extremely well, quite well, fairly well, slightly, or not very well.

These statements were grouped on an a priori basis into 13 personality scales measuring

1. Leadership,
2. Vigor,
3. Mature Personality,
4. Tidiness,
5. Sociability,
6. Self-confidence,
7. Impulsiveness,

TABLE 7-10

Three Areas of Interest Most Closely Correlated With Scores on Ten Personality Scales in the Student Activities Inventory (Boys and Girls Combined)

Personality Scale	Areas of Interest
1. Sociability	Business-Management, Social Service, Sports
2. Social Sensitivity	Social Service, Public Service, Biological Science
3. Impulsiveness	Public Service, Literary-Linguistic, Artistic
4. Vigor	Biological Science, Outdoor Recreation, Social Service
5. Calmness	Physical Science, Biological Science, Public Service
6. Tidiness	Computation, Business-Management, Social Service
7. Culture	Public Service, Artistic, Musical
8. Leadership	Literary-Linguistic, Business-Management, Public Service
9. Self-Confidence	Literary-Linguistic, Business-Management, Public Service
10. Mature Personality	Physical-Biological Sciences, Business-Management, Social Service

8. Calmness,
9. Theoreticality,
10. Social Sensitivity,
11. Group Centeredness,
12. Conventionality,
13. Culture.

Data have been presented for all of these except numbers 9, 11, and 12. Girls in grade 12 obtained higher scores than boys in Social Sensitivity, Tidiness, Culture, and Mature Personality. The variability of the scores of boys and girls was similar on all of the scales.

The intercorrelations of the 10 scales for which data have been obtained are shown in Table 7-2. They tend to be moderately lower than the probable reliability coefficients of the same variables (by inference from the data in Table 7-1). The Impulsiveness Scale is least correlated with the others.

The personality scales that had the highest correlations with aptitude and achievement tests were Calmness, Confidence, and Mature Personality among boys and Culture, Social Sensitivity, and Mature Personality among girls.

Interesting relationships between school marks and scores on the personality scales were found. The Mature Personality and Leadership scores were more closely related to school marks than the other personality scores. Scores on the Impulsiveness Scales correlated .02 and -.01 among boys and girls, respectively, with a composite of self-reported school marks. It is likely that the personal characteristics of pupils who obtained high scores on the Mature Personality and Leadership Scales were more pleasing to teachers than those of pupils who obtained high scores on the Impulsiveness Scale. School marks probably reflect in part pupil-teacher relationships.

The correlations of the personality scales with the interest scales described in Chapter 6 are shown in Table 7-9. Inspection of these coefficients reveals relationships that agree well with a priori expectations. The associations of personality traits and areas of interest may be illustrated with the following examples.

Personality Trait	An Associated Area of Interest
Sociability	Business Management
Social Sensitivity	Social Service
Impulsiveness	Public Service
Vigor	Outdoor Recreation
Calmness	Physical Science
Tidiness	Computation
Culture	Art
Leadership	Business Management
Self-Confidence	Literary-Linguistic
Mature Personality	Physical-Biological Sciences

Relationships between scores on the personality scales and several other groups of personal characteristics, cultural activities, characteristics of the home, and social activities have also been presented.

In general, the data supply encouraging evidence regarding the construct validity of the personality scales in the Project TALENT Student Activities Inventory.

Chapter 8

INTERRELATIONSHIPS OF SCORES ON INFORMATION TESTS, INTEREST SCALES, PERSONALITY SCALES, AND ACTIVITIES ITEMS

Introduction

When the battery of tests for Project TALENT was designed, it was decided to measure interests and personality traits as well as information and subject-matter achievement. A great deal of data about student activities was also obtained in the Student Information Blank. In this chapter are presented the interrelationships of 26 subscores on the Information Test, the 17 interest scales in the Interest Inventory, the 10 personality scales in the Student Activities Inventory, and 44 items dealing with activities taken from the Student Information Blank.

Information-Test Subscores

The 26 subscores in the Information Test used in this study are listed in Table 8-1. They cover a wide variety of information from academic fields (such as literature, physical science, and mathematics) to nonacademic fields (such as mechanics, sports, hunting, and fishing). The reliability coefficients of these subscores in a sample of 466 Basic Airmen in the U.S. Air Force are also shown in Table 8-1. For short tests, their reliability coefficients are, in general, rather high; in fact, all of them are sufficiently high for satisfactory group management.

Their means, standard deviations, and intercorrelations in a sample of 1,185 twelfth-grade boys are shown in Table 8-2 and in a sample of 1,088 twelfth-grade girls are shown in Table 8-3. The subscores are labeled as variables 45-70. The highest correlations among both boys and girls tend to be among variables 45-50, all of which are academic subjects in the college-preparatory curriculum. The lowest coefficients tend to involve the subscores in hunting and in fishing.

That many of the 26 Information-Test subscores measure reliable variance not measured by their sum is shown by the reliability coefficients given in the right-hand column of Table 8-1. These are the reliability coefficients of the residuals of the 26 subscores after the variance attributable to the sum score was partialed out. A residual score was obtained for each airman by subtracting from his subscore in a given area a predicted subscore estimated from his sum score

TABLE 8-1

Reliability Coefficients and Other Statistics
for Selected Scales in the Project TALENT Information Test

(Air Force Sample II: N = 466 Basic Airmen)

Scale	Number of Items	M	s	r_{aA} [a]	r^{*} [b]
R-102a Vocabulary	10	6.28	1.86	.364 [c]	-.214
R-103 Literature	24	12.15	4.37	.717	.328
R-104 Music	13	5.32	2.68	.622	.334
R-105 Social Studies	24	14.38	5.26	.817	.487
R-106 Math	23	7.58	4.82	.835	.659
R-107 Physical Science	18	8.56	4.10	.816	.518
R-108 Biological Science	11	5.61	2.01	.451	-.015
R-109 Scientific Attitude	10	5.78	1.84	.426	.162
R-110 Aeronautics & Space	10	4.53	2.36	.640	.272
R-111 Electricity & Electronics	20	9.26	4.27	.794	.622
R-112 Mechanics	19	12.74	3.24	.664	.438
R-113 Farming	12	7.62	2.23	.587	.371
R-114 Home Economics	21	8.33	2.83	.444	.283
R-115 Sports	14	7.65	2.81	.689	.549
R-131 Art	12	5.73	2.38	.603	.228
R-132 Law	9	4.89	1.71	.554	.242
R-133 Health	9	5.54	1.92	.589	.206
R-134 Engineering	6	3.19	1.21	.391	.099
R-135 Architecture	6	2.52	1.38	.423	.082
R-138 Military	7	3.00	1.38	.500	.231
R-139 Business	10	4.76	1.94	.498	.137
R-145 Hunting) R-146 Fishing)	10	3.98	2.10	.619	.567
R-147 Outdoor Activities	9	4.62	1.72	.460	.120
R-150 Theater & Ballet	8	3.73	1.59	.537	.256
R-137 Foreign Travel	5	2.60	1.28	.479	.107
Total of Above Scales	320	160.35	42.62	.958	

[a] Reliabilities have been computed with Angoff formula No. 16, except for test R-102a.

[b] r^{*} = reliability of residual scores after total scores have been partialed out.

[c] .364 = KR #21 reliability coefficient for 10 vocabulary items.

TABLE 8-2

Means, Standard Deviations, and Intercorrelations of Boys' Scores on 44 Items in the Student Information Blank, 26 Subscores in the Information Test, 2 Achievement Tests, 10 Personality Scales in the Student Activities Blank, and 17 Scales in the Interest Inventory[2] (N=1,088)

Var	Code	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	SIB-017	Model Building		292	219	205	164	017	130	112	015	243	035	100	113	080	105	031	017	129	-013	091	108
2	SIB-020	Electrical Repair	292		337	321	340	104	140	118	043	192	033	051	094	089	073	-008	065	162	059	068	157
3	SIB-021	Woodworking	219	337		373	355	100	108	163	011	178	036	-023	-018	016	113	-013	103	144	166	183	199
4	SIB-022	Metal Working	205	321	373		490	105	190	232	008	172	015	-048	-019	007	116	038	120	164	235	138	177
5	SIB-023	Auto Repair	164	360	355	490		102	214	278	-079	112	-029	-090	-032	001	053	010	-015	114	164	153	118
6	SIB-042	Factory Work	017	104	100	105	102		-000	030	033	091	076	086	-027	013	036	061	121	069	045	012	058
7	SIB-196	Hand Tools in the Home	130	140	108	190	214	-000		481	-061	013	-040	042	045	154	-018	032	-011	042	026	109	069
8	SIB-197	Elec.Tools in the Home	112	118	163	232	278	030	481		044	069	027	-003	051	204	000	115	035	044	093	031	033
9	SIB-003	Debate,Drama,Music Clubs	015	043	011	008	-079	033	-061	044		061	012	328	113	170	036	276	006	102	047	091	038
10	SIB-014	Drawing,Painting,etc.	243	192	178	172	112	091	013	069	061		205	185	074	120	253	086	096	153	003	056	101
11	SIB-015	Acting,Singing,Dancing	035	033	006	015	-059	076	-040	027	012	205		307	118	156	069	275	096	187	046	078	052
12	SIB-030	Concerts,Plays,etc.	100	091	-023	-048	-090	086	042	-003	028	185	307		229	264	054	154	070	144	-011	082	167
13	SIB-056	Number of Books Read	113	094	-018	-019	-032	-027	045	051	113	074	118	229		141	030	-032	-017	072	-008	020	047
14	SIB-193	Musical Instruments,Hi-Fi,etc.	080	089	016	007	001	013	154	204	170	120	156	264	141		090	180	019	039	-138	-001	-039
15	SIB-288	Art Awards	105	073	113	116	053	036	-018	000	036	254	069	054	030	090		286	014	048	-031	014	052
16	SIB-289	Music Awards	031	-008	-013	038	010	061	032	115	276	086	275	154	-032	180	286		-042	064	008	013	-001
17	SIB-025	Sewing,Knitting,etc.	017	065	103	120	-015	121	-011	035	006	096	096	070	-017	019	014	-042		290	048	033	165
18	SIB-026	Cooking	129	162	144	164	114	069	042	044	102	153	187	144	072	039	048	064	290		044	188	340
19	SIB-005	Farm Youth Groups	-013	059	166	235	164	045	026	093	097	003	046	-011	-008	-138	-031	008	048	044		264	256
20	SIB-024	Caring for Animals	091	068	183	138	153	012	109	031	091	096	078	082	020	-001	014	013	033	188	264		354
21	SIB-028	Gardening,etc.	108	157	199	177	118	058	069	033	038	101	052	167	047	-039	052	-001	165	340	256	354	
22	SIB-040	Farm Work	007	044	175	162	201	-059	073	074	032	-041	036	-044	041	-190	-058	-001	105	092	376	305	244
23	SIB-013	Capt.of Athletic Team	-001	-008	-001	036	003	011	-017	030	028	041	061	033	044	028	030	028	025	022	042	-000	-003
24	SIB-027	Baseball,Football,Basketball	048	-038	043	014	018	044	-037	-013	054	036	077	038	054	006	-015	022	-063	037	008	078	031
25	SIB-031	Golf,Tennis,Swimming	170	102	053	029	085	070	072	068	151	115	118	225	109	171	050	072	017	129	-049	049	035
26	SIB-032	Track,Field,Hockey,etc.	121	098	145	135	156	088	071	089	076	125	088	131	056	073	029	007	036	110	057	122	090
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	228	153	163	166	151	087	148	170	151	176	168	187	126	141	107	087	036	173	083	180	165
28	SIB-194	Sports Equipment	103	132	078	087	153	016	271	252	093	086	061	134	112	295	080	130	-004	024	002	090	036
29	SIB-230	Athletic Teams	003	-033	-036	-030	-014	042	004	048	089	-021	149	063	124	060	048	042	-016	-000	-006	026	-024
30	SIB-290	Athletics Awards	-044	-013	-009	-026	-021	047	-035	-026	064	-027	111	053	-000	050	089	151	-024	025	-050	008	-020
31	SIB-029	Hunting or Fishing	224	124	264	235	292	076	218	149	-030	049	-001	027	063	-025	-025	-019	029	127	168	298	249
32	SIB-045	Camp Counselor	061	096	073	091	026	154	-016	031	126	076	146	112	053	062	055	035	129	085	-011	017	117
33	SIB-291	Activities Awards	126	148	074	062	060	044	043	062	145	085	144	150	034	151	178	178	026	105	-020	034	023
34	SIB-011	President of a Class	065	072	-015	021	032	031	026	026	162	070	196	169	089	104	052	082	039	088	091	044	060
35	SIB-012	Officer of a Class	061	127	039	051	018	012	035	029	266	097	249	262	140	154	067	119	027	099	115	123	115
36	SIB-231	Number of Clubs	061	101	-044	-029	-013	034	050	093	321	091	307	314	235	211	028	173	-005	083	070	054	056
37	SIB-038	Odd Jobs	138	089	053	-012	057	009	043	020	071	111	094	118	074	051	078	036	064	145	-107	-015	145
38	SIB-039	Clerical Work	084	070	058	040	-016	075	-044	012	139	116	152	171	070	095	037	043	120	101	021	020	059
39	SIB-043	Retail Store Work	084	069	032	046	096	097	-015	-024	059	082	132	108	028	083	008	-000	080	039	-073	-025	-029
40	SIB-044	Sales Work	101	098	018	068	079	113	-016	004	125	146	213	164	033	093	077	068	127	114	-010	029	037
41	SIB-102	Business Courses	-004	-067	058	072	072	059	-005	-000	-052	-040	005	-069	-046	-081	-002	-002	027	-000	156	034	021
42	SIB-058	Science Fiction Books	172	099	057	039	-027	026	018	041	081	134	030	147	006	052	050	-010	018	071	027	018	031
43	SIB-059	Science Books	121	191	042	065	016	-005	079	071	085	119	068	171	095	117	041	026	-009	048	025	016	088
44	SIB-098	Science Courses	099	055	-105	-198	-130	-037	069	014	101	-023	078	175	137	131	-020	071	-113	022	-134	009	012
45	R-102	Info.I: Vocabulary I	124	082	-183	-173	-114	-109	150	035	072	-017	013	143	265	186	-095	-010	-162	-043	-227	-058	-093
46	R-103	" Literature	116	001	-243	-261	-179	-082	044	-056	124	018	068	219	299	210	-028	-011	-166	-011	-237	-064	-080
47	R-104	" Music	049	-009	-205	-214	-193	-059	031	-032	267	022	208	274	223	294	-013	155	-128	045	-231	-067	-093
48	R-105	" Social Studies	090	020	-226	-235	-185	-087	088	-046	075	-024	023	153	256	176	-060	-002	-172	-044	-258	-092	-115
49	R-106	" Mathematics	046	062	-176	-230	-167	-066	104	-005	102	-047	018	203	185	208	-044	025	-146	-041	-233	-082	-070
50	R-107	" Physical Science	116	151	-157	-172	-128	-071	134	021	057	-009	009	180	228	195	-059	015	-163	-014	-250	-068	-059
51	R-108	" Biological Science	108	085	-102	-141	-112	-063	096	-014	039	017	039	126	195	148	-012	031	-119	033	-152	011	-007
52	R-110	" Aero & Space	205	166	-111	-071	-000	-031	140	069	038	038	-003	109	245	180	022	009	-128	-017	-164	-079	-057
53	R-111	" Elec & Electron	199	379	015	035	110	-037	203	142	037	-003	-044	099	161	197	005	055	-107	007	-153	-044	-022
54	R-112	" Mechanical	198	225	074	158	267	-094	296	198	-057	-001	-086	015	139	082	-077	-061	-113	-023	-019	039	006
55	R-113	" Farming	059	034	008	021	077	-108	199	129	063	-014	075	065	161	-027	-077	010	-079	-023	184	166	091
56	R-114	" Home Economics	116	100	-036	-079	-035	-040	173	079	057	024	049	119	187	097	-058	-015	-015	110	-078	-033	058
57	R-115	" Sports	070	-083	-181	-216	-123	-044	008	-068	050	-065	049	086	151	114	-035	006	-159	-041	-199	-070	-106
58	R-131	Info II: Art	157	080	-132	-131	-094	-051	077	009	089	136	067	184	240	229	067	010	-091	007	-259	-094	-121
59	R-134	" Engineering	137	117	-024	-049	031	-040	192	073	020	033	-029	110	139	097	-025	024	-117	003	-138	-023	-001
60	R-135	" Architecture	114	045	-098	-093	-060	-024	079	005	066	067	084	170	207	173	034	034	-098	033	-206	-099	-067
61	R-139	" Acct,Bus,Sales	102	068	-132	-145	-045	-069	109	027	036	-026	034	102	179	178	-048	029	-089	-042	-183	-061	-047
62	R-140	" Practical Knowledge	072	052	-121	-108	-027	-033	156	028	044	015	048	093	113	118	-092	-023	-102	014	-177	-064	-109
63	R-141	" Clerical	044	-023	-107	-114	-097	-051	090	034	061	-071	062	133	156	058	-071	049	-102	-023	-042	012	-018
64	R-143	" Colors	096	071	001	-054	-021	-048	072	002	077	091	076	142	122	095	073	030	-058	038	-062	005	031
65	R-145	" Hunting	087	095	117	120	166	-069	215	140	-015	-020	-051	-061	065	-044	-050	-001	-057	-003	158	158	070
66	R-146	" Fishing	070	043	046	038	086	-010	160	080	-021	015	-015	-015	139	045	-042	-053	-033	039	036	098	072
67	R-147	" Outdr Act (other)	069	099	-092	-088	033	-041	163	072	085	-029	051	112	157	158	-004	088	-148	-015	-133	-020	-035
68	R-149	" Games	074	017	-102	-131	-102	-057	036	-018	060	012	009	160	156	216	-009	019	-109	-025	-187	-030	-058
69	R-150	" Theater,Ballet	072	017	-170	-190	-125	-045	034	-035	182	024	176	191	228	221	-026	080	-153	-007	-213	-083	-140
70	R-151	" Foods	071	035	-111	-127	-080	-019	058	-037	101	063	033	148	138	176	028	021	-069	039	-216	-079	-062
71	R-230	English Total	024	-005	-201	-234	-168	-104	087	-068	132	-021	066	159	173	174	-120	025	-157	-049	-156	-040	-114
72	R-312	Math II	024	033	-174	-236	-153	-096	090	-015	101	-071	030	190	164	187	-093	001	-153	-036	-190	-052	-067
73	R-601	SAI: Sociability	012	-031	-014	-022	058	076	010	050	148	024	163	128	007	091	-003	089	-008	039	044	035	-011
74	R-602	" Social Sensitivity	040	026	-014	-047	-031	070	028	008	248	078	230	232	097	220	029	159	024	106	001	039	083
75	R-603	" Impulsiveness	025	068	-015	038	035	121	-004	034	055	099	028	065	103	146	075	056	038	031	-043	-089	-008
76	R-604	" Vigor	065	043	064	012	034	034	060	063	177	071	184	155	114	110	-005	087	025	065	057	094	120
77	R-605	" Calmness	038	027	-032	-057	-039	042	059	012	174	030	130	190	148	104	-023	087	009	050	-011	027	044
78	R-606	" Tidiness	123	059	069	002	-028	030	051	039	155	060	146	179	092	141	-061	048	064	094	-029	-001	048
79	R-607	" Culture	082	016	031	-020	-038	048	-014	017	321	157	275	339	148	222	061	118	028	133	057	029	117
80	R-608	" Leadership	-058	041	-053	-052	-043	036	016	-001	271	040	307	219	112	124	003	146	028	059	002	-011	053
81	R-609	" Self-Confidence	030	026	-008	-019	032	010	013	027	145	086	118	184	137	123	002	091	-047	053	-059	-011	-003
82	R-610	" Mature Personality	127	093	068	036	023	048	087	041	206	096	180	184	148	145	-011	127	044	083	030	071	137
83	F-701	Int Inv: Physical Science	174	274	014	-001	064	008	093	022	060	077	-001	167	167	080	014	-004	-011	093	-085	-001	082
84	F-702	" Biol.Sci & Med	075	126	-022	-077	-042	059	-019	-040	152	106	135	220	160	135	020	038	054	165	-047	064	161
85	F-703	" Public Service	-032	017	-097	-068	-062	046	-052	-077	200	025	175	204	078	084	011	052	006	076	021	012	084
86	F-704	" Lit-Ling.	-063	-018	-128	-152	-175	047	-101	-121	280	164	295	344	246	173	048	050	087	146	-049	011	053
87	F-705	" Social Service	-048	-025	-022	-081	-132	037	-084	-073	246	088	271	254	084	024	-002	075	144	184	083	066	183
88	F-706	" Artistic	058	104	050	027	-025	058	-035	-020	150	420	186	279	118	169	185	038	104	208	-050	004	139
89	F-707	" Musical	-057	-038	-074	-070	-148	057	-085	-054	327	179	321	322	103	252	071	244	086	165	-020	-018	068
90	F-708	" Sports	004	-038	037	-040	-015	043	-016	-038	071	003	055	056	010	-023	-010	008	015	082	042	068	088
91	F-709	" Outdr. Rec.	083	053	154	118	169	031	169	070	-039	034	-022	-013	043	-057	-017	-067	019	116	128	230	241
92	F-710	" Bus-Mgmt.	-047	-009	-007	-016	-039	121	-069	-078	113	004	154	150	-009	034	-031	033	107	126	014	007	035
93	F-711	" Sales	-063	-042	019	-002	-026	095	-075	-095	095	001	130	146	003	-003	-016	-001	124	139	051	041	117
94	F-712	" Computation	-012	019	-019	-073	-051	044	-030	-071	062	-022	067	073	029	-018	-074	-039	080	119	027	027	098
95	F-713	" Office Work	-034	-030	085	039	-029	070	-059	-061	089	021	111	050	023	-063	-052	-037	181	151	117	055	151
96	F-714	" Mech-Tech	141	344	331	361	424	045	140	118	-134	040	-171	-158	-066	-127	007	-060	060	080	158	079	175
97	F-715	" Skilled Trades	-025	103	300	284	262	055	024	047	-078	037	-076	-162	-110	-186	008	-050	138	116	224	127	225
98	F-716	" Farming	020	034	216	198	205	-001	135	101	-028	023	-051	-048	-018	-154	-017	-022	040	145	310	363	373
99	F-717	" Labor	-052	006	160	199	196	059	-011	014	-071	-022	-076	-125	-092	-184	-027	-044	115	089	208	092	172

TABLE 8-2 (continued)

Var	Code	Description	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
1	SIB-017	Model Building	007	-001	048	170	121	228	103	003	-044	224	061	126	065	061	061	138	084	084	101	-004	172
2	SIB-020	Electrical Repair	044	-008	-038	102	098	153	132	-033	-013	124	096	148	072	127	101	089	070	069	098	-067	099
3	SIB-021	Woodworking	175	-001	043	053	145	163	078	-036	-009	264	073	074	-015	039	-044	053	058	032	018	058	057
4	SIB-022	Metal Working	162	036	014	029	135	166	087	-030	-026	235	091	062	021	051	-029	-012	040	046	068	072	039
5	SIB-023	Auto Repair	201	003	018	085	156	151	153	-014	-021	292	026	060	032	018	-013	057	-016	096	079	072	-027
6	SIB-042	Factory Work	-059	011	044	070	088	087	016	042	047	076	154	044	031	-012	034	009	075	097	113	059	026
7	SIB-196	Hand Tools in the Home	073	-017	-037	072	071	148	271	004	-035	218	-016	043	026	035	050	043	-044	-015	-016	-005	018
8	SIB-197	Elec.Tools in the Home	074	030	-013	068	089	170	252	048	-026	149	031	062	026	029	093	020	012	-024	004	-000	041
9	SIB-003	Debate,Drama,Music Clubs	032	028	054	151	076	151	093	089	064	-030	126	145	162	246	321	071	139	059	125	-052	081
10	SIB-014	Drawing,Painting,etc.	-041	041	036	115	125	176	086	-021	-027	049	076	085	070	097	091	111	116	082	146	-040	134
11	SIB-015	Acting,Singing,Dancing	036	061	077	118	088	168	061	149	111	-001	146	144	196	249	307	094	152	132	213	005	030
12	SIB-030	Concerts,Plays,etc.	-044	033	038	225	131	187	134	063	053	027	112	150	169	262	314	118	171	108	164	-069	147
13	SIB-056	Number of Books Read	041	044	054	109	056	126	117	124	-000	063	053	034	089	140	235	074	070	028	033	-046	406
14	SIB-193	Musical Instruments,Hi-Fi,etc.	-190	028	006	171	073	141	295	060	050	-025	062	151	104	154	211	051	095	083	093	-081	052
15	SIB-288	Art Awards	-028	039	-015	090	029	107	080	048	089	-025	055	178	052	069	028	078	037	008	077	-002	050
16	SIB-289	Music Awards	-001	028	022	072	007	087	130	042	151	-019	035	178	082	119	173	036	043	-000	068	-002	-010
17	SIB-025	Sewing,Knitting,etc.	105	025	-063	017	036	036	-004	-016	-024	029	129	026	039	027	-005	064	120	080	127	027	018
18	SIB-026	Cooking	092	022	037	129	110	173	024	-000	025	127	085	105	058	099	083	145	101	039	114	-000	071
19	SIB-005	Farm Youth Groups	376	042	008	-049	057	083	002	-006	-050	168	-011	-020	091	115	070	-107	021	-073	-010	156	027
20	SIB-024	Caring for Animals	305	-000	018	042	122	180	090	026	008	298	017	034	044	123	054	-015	020	-025	029	034	018
21	SIB-028	Gardening,etc.	244	-003	031	035	090	165	036	-024	-020	249	117	023	060	115	056	145	059	-029	037	021	031
22	SIB-040	Farm Work		-030	018	-072	092	095	014	006	005	260	033	-038	027	047	-032	048	-081	-101	-070	074	046
23	SIB-013	Capt.of Athletic Team	-030		149	086	094	036	051	247	237	008	-010	054	334	251	077	-000	-010	-005	032	020	025
24	SIB-027	Baseball,Football,Basketball	018	149		286	425	172	115	493	337	203	033	104	102	161	147	064	036	084	035	018	031
25	SIB-031	Golf,Tennis,Swimming	-072	086	286		413	460	301	223	177	194	111	149	078	210	226	167	077	201	157	-052	078
26	SIB-032	Track,Field,Hockey,etc.	092	074	425	413		400	202	391	324	257	086	083	066	133	119	091	060	101	080	022	081
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	095	036	172	460	400		246	178	112	261	162	176	081	153	205	171	155	096	162	-000	085
28	SIB-194	Sports Equipment	014	051	115	301	202	246		210	141	311	082	127	089	145	212	139	052	055	078	-050	046
29	SIB-230	Athletic Teams	006	247	493	223	391	178	210		556	087	064	160	183	210	310	060	-015	044	036	030	-003
30	SIB-290	Athletics Awards	005	237	337	177	324	112	141	556		037	055	223	148	165	170	001	-022	-004	008	031	-007
31	SIB-029	Hunting or Fishing	260	008	223	194	257	261	311	087	037		046	032	041	054	-013	054	-002	038	019	073	037
32	SIB-045	Camp Counselor	033	-010	033	111	086	162	082	064	055	046		231	111	103	135	049	152	060	110	-019	017
33	SIB-291	Activities Awards	-038	054	104	149	083	176	127	160	223	032	231		187	236	285	086	058	111	167	-004	011
34	SIB-011	President of a Class	027	334	102	078	066	081	089	183	148	041	111	187		477	328	033	054	028	104	010	030
35	SIB-012	Officer of a Class	047	251	161	210	133	153	145	210	165	054	103	236	477		441	081	026	057	133	-043	025
36	SIB-231	Number of Clubs	-032	077	147	226	119	205	212	310	170	-013	135	285	328	041		054	088	113	148	-032	071
37	SIB-038	Odd Jobs	048	-000	064	167	091	171	139	060	001	054	049	086	033	081	054		124	092	070	-058	075
38	SIB-039	Clerical Work	-081	-010	036	077	060	155	092	-015	-022	-002	152	058	054	026	088	124		129	176	006	047
39	SIB-043	Retail Store Work	-101	-005	084	201	101	096	055	044	-004	038	060	111	028	057	113	092	129		498	005	065
40	SIB-044	Sales Work	-070	032	035	157	080	162	078	036	008	019	110	167	104	133	148	070	176	498		078	071
41	SIB-102	Business Courses	074	020	018	-052	022	-000	-050	030	031	073	-019	-004	010	-043	-032	-058	006	005	078		002
42	SIB-058	Science Fiction Books	046	025	031	078	081	085	046	-003	-007	037	017	011	030	025	071	075	047	065	071	002	
43	SIB-059	Science Books	014	005	045	052	056	086	085	052	013	000	050	035	093	138	175	025	064	033	050	-052	434
44	SIB-098	Science Courses	-048	-007	083	132	041	084	145	130	035	-029	002	086	079	190	256	080	-035	007	013	-153	054
45	R-102	Info.I: Vocabulary I	-137	024	060	214	008	073	185	122	025	-095	-066	045	043	180	182	051	-090	-006	-005	-183	088
46	R-103	" Literature	-197	011	090	246	023	062	146	156	047	-134	-007	086	070	188	253	081	-049	071	014	-190	100
47	R-104	" Music	-166	013	069	223	025	063	165	147	070	-161	022	136	102	198	267	080	004	037	037	-203	034
48	R-105	" Social Studies	-157	-018	100	192	016	000	149	138	014	-153	-036	072	034	146	175	064	-091	020	-033	-171	075
49	R-106	" Mathematics	-145	-010	086	195	-009	052	159	151	047	-161	-021	064	059	199	239	089	-038	-010	-026	-284	024
50	R-107	" Physical Science	-136	-035	045	187	010	065	184	079	-008	-108	002	078	017	152	192	085	-059	004	-042	-249	110
51	R-108	" Biological Science	-053	-038	-000	139	-032	018	148	058	009	-015	-017	082	032	111	123	042	-109	-038	-059	-142	086
52	R-110	" Aero & Space	-106	-027	-038	155	022	056	172	061	-030	-071	-041	071	024	084	128	042	-046	021	-001	-189	132
53	R-111	" Elec & Electron	-060	-063	-076	137	-011	093	202	-036	-090	-041	-023	111	003	109	142	029	-074	008	-026	-175	095
54	R-112	" Mechanical	063	-031	-040	126	044	102	244	012	-082	111	-068	029	024	083	042	004	-133	-004	-036	-089	000
55	R-113	" Farming	281	-023	046	048	-001	068	181	088	-017	164	-055	008	048	148	119	-005	-085	-073	-047	-030	-011
56	R-114	" Home Economics	-009	003	-010	112	013	076	123	024	-011	015	-008	035	060	140	142	095	-001	004	009	-097	062
57	R-115	" Sports	-119	129	398	265	204	065	204	403	270	-030	-013	080	087	185	197	080	-011	072	001	-099	-003
58	R-131	Info II: Art	-192	035	032	214	048	060	134	075	020	-130	-002	098	061	175	164	068	-038	071	030	-162	100
59	R-134	" Engineering	-034	-023	018	163	030	080	201	060	-016	005	-043	091	-006	112	111	065	-053	017	-034	-128	044
60	R-135	" Architecture.	-124	-016	063	154	017	052	116	069	004	-098	-014	084	065	100	149	079	003	057	018	-116	053
61	R-139	" Acct,Bus,Sales	-108	-035	036	158	-022	073	141	057	-011	-077	-044	095	017	155	151	043	-020	091	063	-034	030
62	R-140	" Practical Knowledge	-119	-016	084	173	033	069	130	111	023	-065	-024	067	037	156	123	057	-024	080	061	-068	001
63	R-141	" Clerical	001	-026	097	043	-037	013	082	088	011	-038	-021	035	037	142	125	032	-025	-030	-014	082	006
64	R-143	" Colors	-040	-026	-052	094	-013	085	073	014	-048	002	019	047	035	108	109	018	012	-005	054	-060	038
65	R-145	" Hunting	252	-011	-009	-006	037	061	235	-025	-071	357	-035	-026	-034	-004	-021	-019	-073	-052	-042	-016	033
66	R-146	" Fishing	082	-048	057	102	064	095	287	028	-038	320	-021	-030	022	063	047	043	-089	-007	-015	-020	011
67	R-147	" Outdr Act (other)	-060	-014	037	207	066	096	278	100	032	024	-007	106	035	159	140	104	-103	052	009	-145	009
68	R-149	" Games	-165	003	065	119	037	055	106	088	022	-108	000	063	051	128	114	073	-062	-002	008	-126	064
69	R-150	" Theater,Ballet	-170	046	094	187	033	053	149	154	051	-130	-012	089	073	202	230	042	-041	074	066	-126	069
70	R-151	" Foods	-179	-006	086	208	031	056	127	078	070	-119	028	094	069	118	169	076	005	141	054	-093	037
71	R-230	English Total	-100	-049	097	161	-009	051	109	089	-012	-135	-056	045	070	170	221	052	-059	059	-003	-119	003
72	R-312	Math II	-114	-015	104	187	-019	031	154	141	027	-154	-031	045	061	202	231	109	-045	015	-025	-251	027
73	R-601	SAI: Sociability	-012	138	242	174	138	133	147	193	118	135	063	121	144	195	185	020	087	117	127	067	003
74	R-602	" Social Sensitivity	-040	062	138	173	107	147	113	129	056	051	072	107	147	212	244	106	100	137	134	-014	049
75	R-603	" Impulsiveness	-052	121	040	041	038	058	086	107	068	014	076	025	062	054	107	043	102	091	092	-025	074
76	R-604	" Vigor	071	129	287	157	274	164	132	325	206	165	097	126	175	227	239	083	064	069	073	-021	032
77	R-605	" Calmness	-018	047	125	138	056	100	119	118	031	001	098	070	111	164	183	051	094	016	020	-050	068
78	R-606	" Tidiness	-066	004	102	113	081	126	067	063	018	036	059	081	066	141	177	094	104	092	094	010	071
79	R-607	" Culture	-016	071	107	149	073	128	093	061	026	015	125	149	139	256	293	099	152	121	146	-042	104
80	R-608	" Leadership	-038	138	203	150	123	116	139	265	209	-022	119	165	324	353	349	014	071	103	140	-066	-000
81	R-609	" Self-Confidence	-055	070	179	144	138	118	073	171	125	003	084	124	169	211	208	040	083	026	064	-021	081
82	R-610	" Mature Personality	053	057	139	138	095	142	102	113	047	049	082	112	169	234	258	058	098	092	096	-032	068
83	F-701	Int Inv: Physical Science	-078	005	128	203	121	141	105	084	000	033	032	098	069	152	170	076	018	044	032	-191	144
84	F-702	" Biol.Sci & Med	-081	005	146	250	159	150	089	099	058	026	082	112	084	160	180	083	073	064	057	-159	125
85	F-703	" Public Service	-095	082	171	183	141	105	037	102	062	-038	100	120	124	243	184	005	095	119	196	-020	027
86	F-704	" Lit-Ling.	-147	060	136	183	119	098	030	111	049	-109	108	094	140	223	236	067	170	114	175	-089	098
87	F-705	" Social Service	-016	054	187	130	141	098	-013	127	057	-002	137	121	104	189	218	101	158	123	177	004	-004
88	F-706	" Artistic	-116	077	009	146	077	089	061	021	-030	-053	077	087	088	148	143	068	123	092	110	-104	121
89	F-707	" Musical	-096	022	-021	106	-019	060	001	-028	-029	-121	076	047	061	106	156	060	131	056	072	-118	020
90	F-708	" Sports	054	163	539	273	393	179	112	437	293	155	075	066	078	127	108	054	064	069	034	005	-026
91	F-709	" Outdr. Rec.	210	046	146	147	210	144	197	113	007	546	038	-004	-005	-005	-044	005	-008	006	-019	012	-004
92	F-710	" Bus-Mgmt.	-065	078	175	156	129	112	-004	091	059	022	104	118	092	168	088	009	120	149	190	063	-012
93	F-711	" Sales	000	052	135	110	133	109	014	071	064	038	097	049	054	100	032	044	152	151	206	088	011
94	F-712	" Computation	-042	-004	143	072	035	064	-020	047	008	-023	054	026	026	119	060	057	133	112	124	053	031
95	F-713	" Office Work	038	-017	062	-004	023	041	-050	002	-043	027	075	-050	-006	020	-011	048	202	066	091	123	004
96	F-714	" Mech-Tech	167	-009	016	-008	114	073	-019	-057	-100	188	005	-017	-071	-090	-122	-011	-025	003	-035	005	-003
97	F-715	" Skilled Trades	211	015	028	-076	112	022	-113	-031	-051	156	066	-060	-078	-112	-145	013	015	-002	-041	071	-048
98	F-716	" Farming	363	-001	057	-011	104	106	049	013	-058	328	055	-042	-033	-009	-067	002	-047	-052	-065	066	-045
99	F-717	" Labor	176	018	023	-071	057	-016	-115	-034	-057	137	064	-094	-092	-130	-128	029	024	-008	-033	106	-058

TABLE 8-2 (continued)

Var	Code	Description	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
1	SIB-017	Model Building	121	099	124	116	049	090	046	116	108	205	199	198	059	116	070	157	137	114	102	072	044
2	SIB-020	Electrical Repair	191	055	082	001	-009	020	062	151	085	166	379	225	034	100	-083	080	117	045	068	052	-023
3	SIB-021	Woodworking	042	-105	-183	-243	-205	-226	-176	-157	-102	-111	015	074	008	-036	-181	-132	-024	-098	-132	-121	-107
4	SIB-022	Metal Working	065	-198	-173	-261	-214	-235	-230	-172	-141	-071	035	158	021	-079	-216	-131	-049	-093	-145	-108	-114
5	SIB-023	Auto Repair	016	-130	-114	-179	-193	-185	-167	-128	-112	-000	110	267	077	-035	-123	-094	031	-060	-045	-027	-097
6	SIB-042	Factory Work	-005	-037	-109	-082	-059	-087	-066	-071	-063	-031	-037	-094	-108	-040	-044	-051	-040	-024	-069	-033	-051
7	SIB-196	Hand Tools in the Home	079	069	150	044	031	088	104	134	096	140	203	296	199	173	008	077	192	079	109	156	090
8	SIB-197	Elec.Tools in the Home	071	014	035	-056	-032	-046	-005	021	-014	069	142	198	129	079	-068	009	073	005	027	028	034
9	SIB-003	Debate,Drama,Music Clubs	085	101	072	124	267	075	102	057	039	038	037	-057	063	057	050	089	020	066	036	044	061
10	SIB-014	Drawing,Painting,etc.	119	-023	-017	018	022	-024	-047	-009	017	038	-003	-001	-014	024	-065	136	033	067	-026	015	-071
11	SIB-015	Acting,Singing,Dancing	068	078	013	068	208	023	018	009	039	-003	-044	-086	075	049	049	067	-029	084	034	048	062
12	SIB-030	Concerts,Plays,etc.	171	175	143	219	274	153	203	180	126	109	099	015	065	119	084	184	110	170	102	093	133
13	SIB-056	Number of Books Read	395	137	265	299	223	256	185	228	195	245	161	139	161	187	151	240	139	207	179	113	156
14	SIB-193	Musical Instruments,Hi-Fi,etc.	117	131	186	210	294	176	208	195	148	180	197	082	-027	097	114	229	097	173	178	118	058
15	SIB-288	Art Awards	041	-020	-095	-028	-013	-060	-044	-059	-012	022	005	-077	-077	-058	-035	067	-025	034	-048	-092	-071
16	SIB-289	Music Awards	026	071	-010	-011	155	-002	025	015	031	009	055	-061	010	-015	006	010	024	034	029	-023	049
17	SIB-025	Sewing,Knitting,etc.	-009	-113	-162	-166	-128	-172	-146	-163	-119	-128	-107	-113	-079	-015	-159	-091	-117	-098	-089	-102	-102
18	SIB-026	Cooking	048	022	-043	-011	045	-044	-041	-014	033	-017	007	-023	-023	110	-041	007	003	033	-042	014	-023
19	SIB-005	Farm Youth Groups	025	-134	-227	-237	-231	-258	-233	-250	-152	-164	-153	-019	184	-078	-199	-259	-138	-206	-183	-177	-042
20	SIB-024	Caring for Animals	016	009	-058	-064	-067	-092	-082	-068	011	-079	-044	039	166	-033	-070	-094	-023	-099	-061	-064	012
21	SIB-028	Gardening,etc.	088	012	-093	-080	-093	-115	-070	-059	-007	-057	-022	006	091	058	-106	-121	-001	-067	-047	-109	-018
22	SIB-040	Farm Work	014	-048	-137	-197	-166	-157	-145	-136	-053	-106	-060	063	281	-009	-119	-192	-034	-124	-108	-119	001
23	SIB-013	Capt.of Athletic Team	005	-007	024	011	013	-018	-010	-035	-038	-027	-063	-031	-023	003	120	035	-023	-016	-035	-016	-026
24	SIB-027	Baseball,Football,Basketball	045	083	060	090	069	100	086	045	-000	-038	-076	-040	046	-010	398	032	018	063	036	084	097
25	SIB-031	Golf,Tennis,Swimming	252	132	214	246	223	192	145	187	139	155	137	126	048	112	265	214	163	154	158	173	043
26	SIB-032	Track,Field,Hockey,etc.	056	041	008	023	025	016	-009	010	-032	022	-011	044	-001	013	204	048	030	017	-022	033	-037
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	086	084	073	062	063	006	052	065	018	056	093	102	068	076	065	060	080	052	073	069	013
28	SIB-194	Sports Equipment	085	145	185	146	165	149	159	184	148	172	202	244	181	123	204	134	201	116	141	130	082
29	SIB-230	Athletic Teams	052	130	122	156	147	138	151	079	058	061	-036	012	088	024	403	075	060	069	057	111	088
30	SIB-290	Athletics Awards	013	035	025	047	070	014	047	-008	009	-030	-090	-082	-017	-011	270	020	-016	004	-011	023	011
31	SIB-029	Hunting or Fishing	000	-029	-095	-134	-161	-153	-161	-108	-015	-071	-041	111	164	015	-030	-130	005	-098	-077	-065	-038
32	SIB-045	Camp Counselor	050	002	-066	-007	022	-036	-021	002	-017	-041	-023	-068	-055	-008	-019	-002	-043	-014	-044	-026	-021
33	SIB-291	Activities Awards	035	086	045	086	136	072	064	078	082	071	111	029	008	035	080	098	091	084	095	067	035
34	SIB-011	President of a Class	093	079	043	070	102	034	059	017	032	024	003	024	048	060	087	061	-006	065	017	037	037
35	SIB-012	Officer of a Class	138	190	180	188	198	146	199	152	111	084	109	083	148	140	185	175	112	100	155	156	142
36	SIB-231	Number of Clubs	175	256	182	253	267	175	239	192	123	128	142	042	119	142	197	164	111	149	151	123	125
37	SIB-038	Odd Jobs	025	080	051	081	080	064	089	085	042	042	029	004	-005	095	080	068	065	079	043	057	032
38	SIB-039	Clerical Work	064	-035	-030	-049	004	-091	-038	-059	-109	-046	-074	-133	-085	-001	-011	-038	-053	003	-020	-024	-025
39	SIB-043	Retail Store Work	033	007	-006	071	037	020	-010	004	-038	021	008	-004	-073	004	072	071	017	057	091	080	-030
40	SIB-044	Sales Work	050	013	-005	014	037	-033	-026	-042	-059	-001	-026	-036	-047	009	001	030	-034	018	063	061	-014
41	SIB-102	Business Courses	-052	-153	-183	-190	-203	-171	-284	-249	-142	-189	-175	-089	-030	-097	-099	-162	-128	-116	-034	-068	082
42	SIB-058	Science Fiction Books	434	054	088	100	034	075	024	110	086	132	095	000	-011	062	-003	100	044	053	030	001	006
43	SIB-059	Science Books		211	219	210	161	195	240	295	219	297	287	153	107	161	116	147	122	163	139	088	104
44	SIB-098	Science Courses	211		431	427	381	436	563	601	426	353	393	230	196	251	299	310	255	277	256	254	172
45	R-102	Info.I: Vocabulary I	219	431		727	627	719	697	740	609	647	612	521	382	465	526	616	486	500	584	481	360
46	R-103	" Literature	210	427	727		685	745	667	659	580	569	466	363	312	425	537	666	420	520	555	443	340
47	R-104	" Music	161	381	627	685		624	601	574	465	492	420	305	259	376	475	580	384	470	485	382	333
48	R-105	" Social Studies	195	436	719	745	624		665	702	581	535	515	375	349	401	551	603	463	493	582	452	365
49	R-106	" Mathematics	240	563	697	667	601	665		727	523	539	559	365	273	397	486	532	402	448	499	384	319
50	R-107	" Physical Science	295	601	740	659	574	702	777		606	645	686	456	325	425	453	568	454	473	494	391	317
51	R-108	" Biological Science	219	426	609	580	465	581	523	606		538	521	424	393	374	333	478	356	407	435	321	253
52	R-110	" Aero & Space	297	353	647	563	492	535	539	645	538		654	517	285	376	355	561	416	427	445	350	238
53	R-111	" Elec & Electron	287	393	612	466	420	515	559	686	521	654		598	318	417	257	490	445	384	463	337	240
54	R-112	" Mechanical	153	230	521	363	305	375	365	456	424	517	598		469	391	266	380	460	311	392	349	268
55	R-113	" Farming	107	196	382	312	259	349	273	325	393	285	318	469		317	268	247	317	248	296	251	321
56	R-114	" Home Economics	161	291	465	425	376	401	397	425	374	376	417	391	317		251	420	336	313	356	302	285
57	R-115	" Sports	116	299	526	537	475	551	486	453	333	355	257	266	268	251		417	313	355	423	384	313
58	R-131	Info II: Art	147	310	616	666	580	603	532	568	478	561	490	380	247	420	417		403	497	514	459	311
59	R-134	" Engineering	122	259	486	420	384	463	402	454	356	416	445	460	317	336	313	403		323	382	355	276
60	R-135	" Architecture	163	277	500	520	470	493	448	473	407	427	384	311	248	313	355	497	323		431	335	259
61	R-139	" Acct,Bus,Sales	139	256	584	555	485	582	499	494	435	445	463	399	296	356	423	514	382	431		420	379
62	R-140	" Practical Knowledge	088	254	481	443	382	452	384	391	321	350	337	349	251	302	384	459	355	335	420		363
63	R-141	" Clerical	104	172	360	340	333	365	319	317	253	238	240	268	321	285	313	311	276	259	379	363	
64	R-143	" Colors	102	151	248	264	267	215	214	233	199	209	221	211	172	208	127	268	163	220	194	185	171
65	R-145	" Hunting	078	078	145	044	-019	088	024	129	212	158	185	337	355	149	046	091	214	057	123	088	111
66	R-146	" Fishing	083	141	270	217	159	229	161	246	314	238	233	316	324	211	234	191	230	171	184	231	211
67	R-147	" Outdr Act (other)	152	293	568	486	456	504	467	477	452	477	471	458	337	349	392	453	418	333	453	431	324
68	R-149	" Games	134	267	445	441	440	457	437	417	343	340	319	244	175	265	364	426	298	337	381	300	195
69	R-150	" Theater,Ballet	168	311	598	602	598	568	532	512	415	460	408	318	260	361	471	616	370	446	540	456	371
70	R-151	" Foods	115	235	419	471	454	360	348	360	260	285	294	229	070	330	281	438	238	355	371	297	200
71	R-230	English Total	139	383	645	597	517	603	634	575	451	388	376	329	319	340	436	445	373	408	457	401	370
72	R-312	Math II	235	510	643	621	522	627	854	707	482	464	500	323	283	361	448	459	349	402	456	360	326
73	R-601	SAI: Sociability	-011	052	031	043	116	040	-005	-035	-045	-063	-072	014	076	049	185	082	029	-008	073	133	164
74	R-602	" Social Sensitivity	083	212	167	211	234	151	162	121	129	070	073	042	094	140	152	144	064	111	140	182	162
75	R-603	" Impulsiveness	017	-003	039	094	102	068	023	024	040	060	010	-006	001	054	091	090	034	092	070	055	016
76	R-604	" Vigor	081	153	120	146	154	126	098	092	089	016	033	070	143	093	224	100	115	092	088	164	126
77	R-605	" Calmness	123	205	233	216	240	223	238	192	144	145	138	124	155	197	215	181	117	161	191	178	200
78	R-606	" Tidiness	075	142	136	101	133	110	130	098	054	002	044	065	040	146	105	092	068	090	105	171	178
79	R-607	" Culture	150	160	108	171	230	104	150	098	080	037	044	013	052	110	132	113	042	116	128	139	154
80	R-608	" Leadership	122	211	191	234	276	172	222	170	126	087	082	016	094	143	208	178	113	138	157	182	167
81	R-609	" Self-Confidence	110	137	177	191	223	179	157	150	112	129	097	110	082	127	202	204	153	119	155	141	148
82	R-610	" Mature Personality	176	223	213	180	194	198	252	196	142	109	150	137	142	170	141	127	153	129	151	155	170
83	F-701	Int Inv: Physical Science	293	376	344	296	227	323	400	482	312	359	420	258	089	212	263	213	256	251	234	191	115
84	F-702	" Biol.Sci & Med	199	269	224	261	232	210	285	302	277	210	170	078	049	195	233	185	141	177	157	132	122
85	F-703	" Public Service	056	104	106	179	168	181	144	106	060	053	028	-051	001	029	179	117	039	104	173	057	104
86	F-704	" Lit-Ling.	134	183	208	317	296	239	253	223	172	125	039	-089	-004	129	197	231	062	220	193	115	095
87	F-705	" Social Service	000	057	-002	080	089	045	072	008	-001	-094	-100	-169	-027	040	096	-000	-059	033	069	-003	040
88	F-706	" Artistic	126	084	108	147	147	091	139	153	129	140	092	017	-034	117	041	178	088	167	090	052	-011
89	F-707	" Musical	045	057	058	132	267	077	117	089	064	036	005	-136	-060	032	029	109	017	105	057	013	009
90	F-708	" Sports	-026	037	016	047	059	059	047	001	-058	-096	-116	-056	042	-021	387	-018	035	-002	029	060	074
91	F-709	" Outdr. Rec.	-037	-050	000	-055	-103	-049	-109	-046	074	-029	-006	075	148	050	051	-068	072	-034	-044	-021	-004
92	F-710	" Bus-Mgmt.	-024	036	-016	048	246	020	046	002	-039	-073	-078	-058	-054	015	112	034	-020	023	106	016	085
93	F-711	" Sales	-054	-037	-108	-057	-048	-071	-055	-045	-097	-151	-144	-162	-081	-040	031	-079	-129	-017	031	-065	034
94	F-712	" Computation	073	106	047	038	026	094	191	091	015	-060	019	-038	-001	081	111	-013	003	071	143	049	142
95	F-713	" Office Work	-032	-087	-146	-137	-107	-121	-070	-126	-121	-190	-151	-149	-026	-009	-066	-162	-111	-031	-034	-108	044
96	F-714	" Mech-Tech	-007	-106	-103	-225	-260	-175	-123	-047	-064	004	157	206	035	-021	-135	-157	051	-047	-079	-097	-110
97	F-715	" Skilled Trades	-114	-253	-297	-345	-362	-336	-330	-301	-232	-247	-140	-073	-046	-130	-214	-308	-153	-167	-232	-233	-190
98	F-716	" Farming	-068	-074	-088	-134	-164	-117	-152	-119	-025	-096	-058	068	218	-003	-065	-151	-011	-043	-081	-087	-018
99	F-717	" Labor	-146	-252	-316	-311	-321	-286	-322	-301	-222	-259	-238	-144	-037	-135	-195	-305	-200	-199	-222	-242	-159

TABLE 8-2 (continued)

Var	Code	Description	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
1	SIB-017	Model Building	096	087	070	069	074	072	071	024	024	012	040	025	065	038	123	082	-058	030	127	174	075
2	SIB-020	Electrical Repair	071	095	043	099	017	017	035	-005	033	-031	026	068	043	027	050	016	041	026	093	274	126
3	SIB-021	Woodworking	001	117	046	-092	-102	-170	-111	-201	-174	-014	-014	-015	064	-032	069	031	-053	-008	068	014	-022
4	SIB-022	Metal Working	-054	120	038	-088	-131	-190	-127	-234	-236	-022	-047	038	012	-057	002	-020	-052	-019	036	-001	-077
5	SIB-023	Auto Repair	-021	166	086	033	-102	-125	-080	-168	-153	058	-031	035	034	-039	-028	-038	-043	032	023	064	-042
6	SIB-042	Factory Work	-048	-069	-010	-041	-057	-045	-019	-104	-096	076	070	121	034	042	030	048	036	016	048	008	-059
7	SIB-196	Hand Tools in the Home	072	215	160	163	036	034	058	087	090	010	028	-004	060	059	051	-014	016	013	087	093	-019
8	SIB-197	Elec.Tools in the Home	002	140	080	072	-018	-035	-037	-068	-015	050	008	034	063	012	039	017	-001	027	041	022	-040
9	SIB-003	Debate,Drama,Music Clubs	077	-015	-021	085	060	182	101	132	101	148	248	055	177	174	155	321	271	145	206	060	152
10	SIB-014	Drawing,Painting,etc.	091	-020	015	-029	012	024	063	-021	-071	024	078	099	071	030	060	157	040	086	096	077	106
11	SIB-015	Acting,Singing,Dancing	076	-051	-015	051	009	176	033	066	030	163	230	028	184	130	146	275	307	116	180	-001	135
12	SIB-030	Concerts,Plays,etc.	142	-061	-015	112	160	191	148	159	190	128	232	065	155	190	179	339	219	184	184	167	220
13	SIB-056	Number of Books Read	122	065	139	157	156	228	138	173	164	007	097	103	114	148	092	148	112	137	148	167	160
14	SIB-193	Musical Instruments,Hi-Fi,etc.	095	-044	045	158	216	221	176	174	187	091	220	146	110	104	141	222	124	123	145	080	135
15	SIB-288	Art Awards	073	-050	-042	-004	-009	-026	028	-120	-093	-003	029	075	-005	-023	-061	061	003	002	-011	014	020
16	SIB-289	Music Awards	030	-001	-053	088	019	080	021	025	001	089	159	056	087	087	048	118	146	091	127	-004	038
17	SIB-025	Sewing,Knitting,etc.	-058	-057	-033	-168	-109	-153	-069	-157	-153	-008	024	038	025	009	064	028	028	-047	044	-011	054
18	SIB-026	Cooking	038	-003	039	-015	-025	-007	039	-049	-036	039	106	031	065	050	094	133	059	053	083	093	165
19	SIB-005	Farm Youth Groups	-062	158	036	-133	-187	-213	-216	-156	-190	044	001	-043	057	-011	-029	057	002	-059	030	-085	-047
20	SIB-024	Caring for Animals	005	158	098	-020	-030	-083	-079	-040	-052	035	039	-089	094	027	-001	029	-011	-011	071	-001	064
21	SIB-028	Gardening,etc.	031	070	072	-035	-058	-140	-062	-114	-067	-011	083	-008	120	084	048	117	053	-003	137	082	161
22	SIB-040	Farm Work	-040	252	082	-060	-165	-170	-179	-100	-114	-012	-040	-052	071	-018	-066	-016	-038	-055	053	-078	-081
23	SIB-013	Capt.of Athletic Team	-026	-011	-048	-014	003	046	-006	-049	-015	138	062	121	129	067	004	071	138	070	057	005	005
24	SIB-027	Baseball,Football,Basketball	-052	-009	057	037	065	094	086	097	104	242	138	040	287	125	102	107	203	179	139	128	146
25	SIB-031	Golf,Tennis,Swimming	094	-006	102	207	119	187	208	161	187	174	173	041	157	138	113	149	150	144	138	203	250
26	SIB-032	Track,Field,Hockey,etc.	-013	037	064	066	037	033	031	-009	-019	138	107	038	274	056	081	073	123	138	095	121	159
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	085	061	095	096	055	053	056	051	031	133	147	058	164	100	126	128	116	118	142	141	150
28	SIB-194	Sports Equipment	073	235	287	278	106	149	127	109	154	147	113	086	132	119	067	093	139	073	102	105	089
29	SIB-230	Athletic Teams	014	-025	028	100	088	154	078	089	141	193	129	107	325	118	063	061	265	171	113	084	099
30	SIB-290	Athletics Awards	-048	-071	-038	032	022	051	070	-012	027	118	056	068	206	031	018	026	209	125	047	000	058
31	SIB-029	Hunting or Fishing	002	357	320	024	-108	-130	-119	-135	-154	135	051	014	165	001	036	015	-022	003	049	033	026
32	SIB-045	Camp Counselor	019	-035	-021	-007	000	-012	028	-056	-031	063	072	076	097	098	059	125	119	084	082	032	082
33	SIB-291	Activities Awards	047	-026	-030	106	063	089	094	045	045	121	107	025	126	070	081	149	165	124	112	098	112
34	SIB-011	President of a Class	035	-034	022	035	051	073	069	070	061	144	147	062	175	111	066	139	324	169	169	069	084
35	SIB-012	Officer of a Class	108	-004	063	159	128	262	118	170	262	195	212	054	227	164	141	256	353	211	234	152	160
36	SIB-231	Number of Clubs	109	-021	047	140	114	230	169	221	231	185	244	107	239	183	177	293	349	208	258	170	180
37	SIB-038	Odd Jobs	018	-019	043	104	073	042	076	062	109	020	106	043	083	051	094	099	014	040	058	076	083
38	SIB-039	Clerical Work	012	-073	-089	-103	-062	-041	005	-059	-045	087	100	102	064	094	104	152	071	083	098	018	073
39	SIB-043	Retail Store Work	-005	-052	-007	052	-002	074	141	059	015	117	137	091	069	016	092	121	103	026	092	044	064
40	SIB-044	Sales Work	054	-042	-015	009	008	066	054	-003	-025	127	134	092	073	020	094	146	140	064	096	032	057
41	SIB-102	Business Courses	-060	-016	-020	-145	-126	-126	-093	-119	-251	067	-014	-025	-021	-050	010	-042	-066	-021	-032	-191	-159
42	SIB-058	Science Fiction Books	038	033	011	009	064	069	037	003	027	003	049	074	032	068	071	104	-000	081	068	144	125
43	SIB-059	Science Books	102	078	083	152	134	168	115	139	235	-011	083	017	081	123	075	150	122	110	176	293	199
44	SIB-098	Science Courses	151	078	141	293	269	311	235	383	510	052	212	-003	153	205	142	160	211	137	223	376	269
45	R-102	Info.I: Vocabulary I	248	145	270	568	445	598	419	645	643	031	167	039	120	233	136	108	191	177	213	344	224
46	R-103	" Literature	264	044	217	486	441	662	471	597	621	043	211	094	146	216	101	171	234	191	180	296	261
47	R-104	" Music	267	-019	157	456	440	598	454	517	522	116	234	102	154	240	133	230	276	223	194	227	232
48	R-105	" Social Studies	215	088	229	504	459	568	360	603	627	040	151	068	126	223	110	104	172	179	198	323	210
49	R-106	" Mathematics	214	024	161	467	437	532	398	634	654	-005	162	023	098	238	130	150	222	157	252	490	285
50	R-107	" Physical Science	233	129	246	477	417	512	360	575	707	-035	121	024	092	192	098	098	170	150	196	482	302
51	R-108	" Biological Science	199	212	314	452	343	415	260	451	482	-045	129	040	089	144	054	080	126	112	142	312	277
52	R-110	" Aero & Space	209	158	238	477	340	460	285	388	464	-063	070	060	016	145	002	037	087	129	109	359	210
53	R-111	" Elec & Electronics	221	185	233	471	319	408	294	376	500	-072	073	010	033	138	044	044	082	097	150	420	170
54	R-112	" Mechanical	211	337	316	458	244	318	229	329	323	014	042	-006	070	124	065	013	016	110	137	258	078
55	R-113	" Farming	172	355	324	337	175	260	070	319	283	076	074	001	143	155	040	052	094	082	142	089	049
56	R-114	" Home Economics	208	149	211	340	265	361	330	340	361	049	140	054	093	197	146	110	143	127	170	212	195
57	R-115	" Sports	127	046	234	392	364	471	281	436	448	185	152	091	224	215	105	132	208	202	141	263	233
58	R-131	Info II: Art	268	091	191	453	426	616	438	445	459	082	144	090	100	181	092	113	178	204	127	213	185
59	R-134	" Engineering	163	214	230	418	298	370	238	373	349	029	064	034	115	117	068	042	113	153	153	256	141
60	R-135	" Architecture	220	057	171	333	337	446	355	408	402	-008	111	092	092	161	090	116	138	119	129	251	177
61	R-139	" Acct,Bus,Sales	194	123	184	453	381	540	371	457	456	073	140	070	088	191	105	128	157	158	151	234	157
62	R-140	" Practical Knowledge	185	088	231	431	300	456	297	401	360	133	182	055	164	178	171	137	182	141	155	191	132
63	R-141	" Clerical	171	111	211	324	195	371	300	370	326	164	162	016	126	200	178	154	167	148	170	115	122
64	R-143	" Colors		073	124	164	172	249	200	224	197	039	083	013	018	112	095	119	099	064	084	115	116
65	R-145	" Hunting	073		340	182	006	020	-086	070	018	021	-014	-040	058	024	-004	-051	-049	029	017	063	-029
66	R-146	" Fishing	124	390		290	135	169	088	171	163	024	024	-013	069	027	014	029	026	015	026	116	098
67	R-147	" Outdr Act (other)	164	182	290		320	471	302	451	460	103	137	038	163	199	091	128	190	151	145	246	149
68	R-149	" Games	172	006	135	320		401	299	350	412	050	090	037	087	122	052	095	133	169	092	232	157
69	R-150	" Theater,Ballet	249	020	169	471	401		412	502	493	156	174	115	154	200	134	150	220	223	180	203	159
70	R-151	" Foods	200	-086	088	302	299	412		309	336	056	142	122	057	089	085	113	187	110	101	126	161
71	R-230	English Total	224	079	171	451	350	502	303		660	040	208	003	139	188	185	169	201	188	257	292	188
72	R-312	Math II	197	018	163	460	412	493	336	660		094	146	-001	105	219	103	129	202	157	248	455	231
73	R-601	SAI: Sociability	039	021	024	103	050	156	056	040	004		538	207	481	435	400	444	374	370	391	061	128
74	R-602	" Social Sensitivity	083	-014	024	137	090	174	142	208	146	538		183	479	572	497	598	474	333	554	142	225
75	R-603	" Impulsiveness	013	-040	-013	038	037	115	122	003	-001	207	183		213	051	021	150	029	099	138	-022	019
76	R-604	" Vigor	018	058	069	163	087	154	057	139	105	481	479	213		451	404	430	421	343	556	178	195
77	R-605	" Calmness	112	024	027	199	122	200	089	188	219	435	572	051	451		535	534	412	442	567	227	178
78	R-606	" Tidiness	095	-004	014	091	052	134	085	185	103	400	497	021	404	535		559	322	321	602	158	158
79	R-607	" Culture	119	-051	029	128	095	150	113	169	129	444	598	150	430	534	559		453	327	556	178	247
80	R-608	" Leadership	099	-049	026	190	133	220	187	201	202	374	474	229	431	412	322	453		386	514	168	218
81	R-609	" Self-Confidence	064	029	015	151	169	223	110	188	157	370	333	099	343	442	321	327	386		451	163	159
82	R-610	" Mature Personality	084	017	026	145	092	180	101	257	248	391	534	138	556	567	602	556	514	451		290	243
83	P-701	Int Inv: Physical Science	115	063	116	246	232	203	126	292	455	061	142	-022	178	227	158	178	168	163	290		632
84	P-702	" Biol.Sci & Med	116	-029	098	149	157	159	161	188	231	128	245	019	195	178	158	247	218	159	243	632	
85	P-703	" Public Service	062	-091	014	023	105	128	135	092	139	223	178	085	149	155	112	239	274	203	198	318	402
86	P-704	" Lit-Ling.	092	-129	002	079	185	227	160	238	237	109	230	048	154	194	147	315	278	204	222	420	542
87	P-705	" Social Service	090	-098	-060	-064	013	049	049	064	062	192	262	-007	186	169	190	294	244	168	230	250	447
88	P-706	" Artistic	111	-086	029	025	078	108	090	088	100	040	179	025	084	120	110	280	158	132	130	420	447
89	P-707	" Musical	117	-120	-048	-003	071	130	074	119	075	042	209	035	087	143	121	295	172	110	128	195	318
90	P-708	" Sports	-049	-015	021	023	015	062	001	062	057	281	143	023	351	156	099	140	163	164	144	259	264
91	P-709	" Outdr. Rec.	-014	286	295	074	-081	-086	-104	-055	-094	060	005	-015	165	-005	-029	-027	-036	015	-001	132	187
92	P-710	" Bus-Mgmt.	020	-076	-040	-036	045	050	081	023	035	286	203	069	169	150	157	198	234	159	183	307	364
93	P-711	" Sales	-010	-077	-049	-105	-024	-041	002	-059	-023	226	142	001	084	083	087	143	110	066	063	174	261
94	P-712	" Computation	047	-051	-050	000	079	057	027	127	226	137	127	-070	101	186	184	151	121	089	196	419	277
95	P-713	" Office Work	-039	-090	-088	-160	-070	-104	-107	-055	-038	074	051	-074	003	064	105	074	008	010	074	182	191
96	P-714	" Mech-Tech	-039	161	056	-031	-147	-195	-142	-126	-120	-024	-077	-066	011	-021	-061	-124	-161	-041	023	400	175
97	P-715	" Skilled Trades	-113	065	-053	-211	-228	-336	-226	-288	-297	-083	-121	-061	-050	-107	-139	-162	-162	-117	-105	056	063
98	P-716	" Farming	-045	218	149	-018	-142	-163	-148	-101	-127	-061	-047	-041	093	-018	-096	-063	-076	-077	-010	080	090
99	P-717	" Labor	-162	021	-079	-211	-188	-316	-214	-267	-286	-055	-105	-032	-071	-133	-158	-173	-151	-121	-122	-029	011

TABLE 8-2 (continued)

Var	Code	Description	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100 [b]	MEAN	S.D.
1	SIB-017	Model Building	-032	-063	-048	058	-057	004	083	-047	-063	-012	-034	141	-025	020	-052	-519	2.4319	1.2629
2	SIB-020	Electrical Repair	017	-018	-025	104	-038	-038	053	-009	-042	019	-030	344	103	034	006	-514	2.3253	1.2723
3	SIB-021	Woodworking	-097	-128	-022	050	-074	037	154	-007	019	-013	085	331	300	216	160	-508	2.2893	1.2436
4	SIB-022	Metal Working	-068	-152	-081	027	-070	-040	118	-016	-002	-073	039	361	284	198	199	-499	2.1575	1.2612
5	SIB-023	Auto Repair	-062	-175	-132	-025	-148	-015	169	-039	-026	-051	-029	424	262	205	196	-607	2.9290	1.4490
6	SIB-042	Factory Work	046	047	037	058	057	043	031	121	095	044	070	045	055	-001	059	-199	1.4117	1.0115
7	SIB-196	Hand Tools in the Home	-052	-101	-084	-035	-085	-016	169	-069	-075	-030	-059	140	024	135	-011	-189	4.6760	1.6354
8	SIB-197	Elec.Tools in the Home	-077	-121	-073	-020	-054	-038	070	-078	-095	-071	-061	118	047	101	014	-086	3.0261	1.8201
9	SIB-003	Debate,Drama,Music Clubs	200	280	246	150	327	071	-039	113	095	062	089	-134	-078	-028	-071	191	2.2306	1.7777
10	SIB-014	Drawing,Painting,etc.	025	164	088	420	179	003	034	004	001	-022	021	040	037	023	-022	101	2.2914	1.2734
11	SIB-015	Acting,Singing,Dancing	175	295	271	186	321	055	-022	154	130	067	111	-171	-076	-051	-076	157	2.1208	1.3340
12	SIB-030	Concerts,Plays,etc.	204	344	254	279	322	056	-013	150	146	073	050	-158	-162	-048	-125	162	3.2852	1.4902
13	SIB-056	Number of Books Read	078	246	084	118	103	010	043	-009	003	029	023	-066	-110	-018	-092	103	2.6552	1.4592
14	SIB-193	Musical Instruments,Hi-Fi,etc.	084	173	024	169	252	-023	-057	034	-003	-018	-063	-127	-186	-154	-184	026	2.7375	1.4046
15	SIB-288	Art Awards	011	048	002	185	071	-010	-017	-031	-016	-074	-052	007	008	-017	-027	-004	1.1502	.5999
16	SIB-289	Music Awards	052	050	075	038	244	008	-067	033	-001	-039	-037	-060	-050	-022	-044	008	1.3226	.9438
17	SIB-025	Sewing,Knitting,etc.	006	087	144	104	086	015	019	107	124	080	181	060	138	040	115	772	1.2058	.6141
18	SIB-026	Cooking	076	146	184	208	165	082	116	126	139	119	151	080	116	145	089	598	2.3865	1.2020
19	SIB-005	Farm Youth Groups	021	-049	083	-050	-020	042	128	014	051	027	117	158	224	310	208	-015	1.7396	1.5105
20	SIB-024	Caring for Animals	012	011	066	004	-018	068	230	007	061	027	055	079	127	363	092	111	2.8020	1.3999
21	SIB-028	Gardening,etc.	084	053	183	139	068	088	241	035	117	098	151	175	225	373	172	154	2.1886	1.2376
22	SIB-040	Farm Work	-095	-147	-016	-116	-096	054	210	-065	000	-042	038	167	211	363	176	-370	2.3208	1.5206
23	SIB-013	Capt.of Athletic Team	082	060	054	077	022	163	046	078	052	-004	-017	-009	015	-001	018	029	5.0424	1.6146
24	SIB-027	Baseball,Football,Basketball	171	136	187	009	-021	539	146	175	135	143	062	016	028	057	023	-374	3.9264	1.2246
25	SIB-031	Golf,Tennis,Swimming	183	183	130	146	106	273	147	156	110	072	-004	-008	-076	-011	-071	-011	4.5826	1.3449
26	SIB-032	Track,Field,Hockey,etc.	141	119	141	077	-019	393	210	129	133	035	023	114	112	104	057	-520	3.9347	1.5876
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	105	098	098	089	060	179	144	112	109	064	041	073	022	106	-016	004	4.2103	1.4225
28	SIB-194	Sports Equipment	037	030	-013	061	001	112	197	-004	014	-020	-050	-019	-113	049	-115	-169	3.4169	1.3592
29	SIB-230	Athletic Teams	102	111	127	021	-028	437	113	091	071	047	002	-057	-031	013	-034	-254	4.5289	3.2583
30	SIB-290	Athletics Awards	062	049	057	-030	-029	293	007	059	064	008	-043	-100	-051	-058	-057	-272	2.2638	1.7822
31	SIB-029	Hunting or Fishing	-038	-109	-002	-053	-121	155	546	022	038	-023	027	188	156	328	137	-502	3.5774	1.3055
32	SIB-045	Camp Counselor	100	108	187	077	076	075	038	104	097	054	075	005	066	055	064	-089	1.4735	1.0882
33	SIB-291	Activities Awards	120	094	121	087	047	066	-004	118	049	026	-050	-017	-060	-042	-094	-124	1.8459	1.5396
34	SIB-011	President of a Class	124	126	102	088	061	078	-005	092	054	026	-006	-071	-078	-033	-092	-011	1.9733	1.4208
35	SIB-012	Officer of a Class	243	223	189	148	106	127	-005	168	100	119	020	-090	-112	-009	-130	126	2.6719	1.7254
36	SIB-231	Number of Clubs	184	236	218	143	156	108	-044	088	032	060	-011	-122	-145	-067	-128	191	3.9962	2.5370
37	SIB-038	Odd Jobs	005	067	101	068	060	054	005	009	044	057	048	-011	013	002	029	235	2.7164	1.3915
38	SIB-039	Clerical Work	095	170	158	123	131	064	-008	120	152	133	202	-025	015	-047	024	198	1.3732	.8568
39	SIB-043	Retail Store Work	119	114	123	092	056	069	006	149	151	112	066	003	-002	-052	-008	-315	2.5478	1.6049
40	SIB-044	Sales Work	196	175	177	110	072	034	-019	190	206	124	091	-035	-041	-065	-033	000	1.9373	1.3746
41	SIB-102	Business Courses	-020	-089	004	-104	-118	005	012	063	088	053	123	005	071	066	106	393	2.1702	1.1490
42	SIB-058	Science Fiction Books	027	098	-004	121	020	-026	-004	-012	011	031	004	-003	-048	-045	-058	-121	2.4884	1.7767
43	SIB-059	Science Books	056	134	000	126	045	-026	-037	-024	-054	073	-032	-007	-114	-068	-146	-145	2.2767	1.7065
44	SIB-098	Science Courses	104	183	057	084	057	037	-050	036	-037	106	-087	-106	-253	-074	-252	-220	3.6899	1.6092
45	R-102	Info.I: Vocabulary I	106	208	-002	108	058	016	000	-016	-108	047	-146	-103	-297	-088	-316	-202	14.2491	3.6928
46	R-103	" Literature	179	317	080	147	132	047	-055	048	-057	038	-137	-225	-345	-134	-311	-015	14.0790	4.8043
47	R-104	" Music	168	296	089	147	267	058	-103	046	-048	026	-107	-260	-362	-164	-321	073	6.7197	3.0581
48	R-105	" Social Studies	181	239	040	091	077	059	-049	020	-071	094	-121	-175	-336	-117	-286	-207	16.8199	5.0785
49	R-106	" Mathematics	144	253	072	139	117	047	-109	046	-055	191	-070	-123	-330	-152	-322	-296	11.5717	6.2702
50	R-107	" Physical Science	106	223	008	153	089	001	-046	002	-095	091	-126	-047	-301	-119	-301	-364	10.5037	4.4631
51	R-108	" Biological Science	060	172	-001	129	064	-058	074	-039	-097	015	-121	-064	-232	-025	-222	-265	6.9081	2.2885
52	R-110	" Aero & Space	053	125	-094	140	036	-096	-029	-073	-151	-060	-190	004	-247	-096	-259	-498	5.2132	2.4876
53	R-111	" Elec & Electron	028	039	-100	092	005	-116	-006	-073	-144	019	-151	157	-140	-058	-208	-551	10.9173	4.5900
54	R-112	" Mechanical	-051	-089	-169	-017	-136	-056	075	-078	-162	-038	-149	206	-073	068	-144	-638	13.4265	3.1690
55	R-113	" Farming	001	-004	-027	-034	-060	042	148	-054	-081	-001	-026	035	-046	218	-037	-227	8.5551	2.1311
56	R-114	" Home Economics	029	129	040	117	032	-021	050	015	-040	081	-009	-021	-130	-003	-135	535	9.2224	2.9127
57	R-115	" Sports	179	197	096	041	029	387	051	112	031	111	-066	-135	-214	-065	-195	-481	8.9200	2.8459
58	R-131	Info II: Art	117	231	-000	178	109	-018	-068	034	-079	-013	-162	-157	-308	-151	-305	021	6.6480	2.4473
59	R-134	" Engineering	039	062	-059	088	017	035	072	-020	-129	003	-111	051	-153	-011	-200	-330	3.6029	1.1655
60	R-135	" Architecture	104	220	033	167	105	-002	-034	023	-017	071	-031	-047	-167	-043	-199	-071	2.9265	.4246
61	R-139	" Acct,Bus,Sales	173	193	069	090	057	029	-044	106	031	143	-034	-079	-232	-081	-222	-055	5.5469	.9282
62	R-140	" Practical Knowledge	057	115	-003	052	013	060	-021	016	-065	049	-108	-097	-233	-087	-242	-031	3.3244	.8119
63	R-141	" Clerical	104	095	060	-011	009	074	-004	085	034	142	044	-110	-190	-018	-159	300	2.0478	.8436
64	R-143	" Colors	062	092	000	111	117	-049	-014	020	-010	047	-039	-039	-113	-045	-162	291	1.2739	.8959
65	R-145	" Hunting	-091	-129	-098	-086	-120	-015	286	-076	-077	-051	-050	161	065	218	021	-472	2.3548	1.2678
66	R-146	" Fishing	014	002	-060	029	-048	021	295	-040	-049	-050	-088	056	-053	149	-079	-379	1.9357	1.3093
67	R-147	" Outdr Act (other)	023	079	-064	025	-003	023	074	-036	-105	000	-160	-031	-211	-018	-211	-240	5.3428	1.7673
68	R-149	" Games	105	185	013	078	071	015	-081	045	-024	079	-070	-147	-228	-142	-188	-197	2.5230	1.1908
69	R-150	" Theater,Ballet	128	227	049	108	130	062	-086	050	-041	057	-104	-195	-336	-163	-316	132	4.4697	1.8054
70	R-151	" Foods	135	160	049	090	074	001	-104	081	002	027	-107	-142	-226	-148	-214	147	1.4035	1.0749
71	R-230	English Total	092	238	064	088	119	062	-055	023	-059	127	-055	-126	-288	-101	-267	209	83.2583	12.8681
72	R-312	Math II	139	237	062	100	075	057	-094	035	-023	226	-038	-120	-297	-127	-286	-202	12.5009	5.6627
73	R-601	SAI: Sociability	223	105	192	040	042	281	060	286	226	137	074	-024	-083	-061	-055	078	6.8116	2.9867
74	R-602	" Social Sensitivity	178	230	262	179	209	143	005	203	142	127	051	-077	-121	-049	-105	238	4.5358	2.3980
75	R-603	" Impulsiveness	085	048	-007	025	035	023	-015	069	001	-070	-074	-066	-061	-041	-032	-010	2.0175	1.6917
76	R-604	" Vigor	149	154	186	084	087	351	165	169	084	101	003	011	-050	093	-071	-043	3.9200	2.1605
77	R-605	" Calmness	155	194	169	120	143	156	-005	150	083	186	064	-021	-107	-018	-133	055	4.6700	2.5609
78	R-606	" Tidiness	112	147	190	110	121	099	-029	157	087	184	105	-061	-139	-096	-158	178	5.6921	2.6769
79	R-607	" Culture	239	315	294	280	295	140	-027	198	143	151	074	-124	-162	-063	-173	285	4.9200	2.4645
80	R-608	" Leadership	274	278	244	158	172	163	-036	234	110	121	008	-161	-162	-076	-151	-040	1.4982	1.4672
81	R-609	" Self-Confidence	203	204	168	132	110	164	015	159	066	089	010	-041	-117	-077	-121	-019	5.6507	2.6112
82	R-610	" Mature Personality	198	222	230	130	128	144	-001	183	063	196	074	023	-105	-010	-122	078	11.9439	5.3890
83	F-701	Int Inv: Physical Science	318	420	250	420	195	259	132	307	174	419	182	400	056	080	-029	-461	34.2417	14.0413
84	F-702	" Biol.Sci & Med	402	542	447	447	318	264	187	364	261	277	191	175	063	090	011	-070	15.0882	7.7668
85	F-703	" Public Service		610	503	328	289	287	055	618	450	348	240	-019	001	004	015	-251	20.7482	12.8718
86	F-704	" Lit-Ling.	610		629	635	584	292	050	530	428	347	339	-033	043	038	033	297	26.4283	13.5557
87	F-705	" Social Service	503	629		405	434	391	123	520	438	380	449	073	224	160	229	489	20.1388	8.9707
88	F-706	" Artistic	328	635	405		525	180	121	344	297	234	267	175	184	126	089	234	12.3033	6.2620
89	F-707	" Musical	289	584	434	525		171	028	243	200	137	210	-031	069	077	047	211	7.4154	5.1932
90	F-708	" Sports	287	292	391	180	171		378	312	255	214	202	202	213	258	176	-315	21.0561	7.1038
91	F-709	" Outdr. Rec.	055	050	123	121	028	378		113	073	-002	056	308	280	527	255	-462	7.9789	2.8998
92	F-710	" Bus-Mgmt.	618	530	520	344	243	312	113		687	544	457	163	203	082	243	-232	29.2040	10.0643
93	F-711	" Sales	450	428	438	297	200	255	073	687		550	538	142	267	109	285	-165	10.6875	5.2890
94	F-712	" Computation	348	347	380	234	137	214	-002	544	550		675	189	189	051	166	-025	17.5276	8.6990
95	F-713	" Office Work	240	339	449	267	210	202	056	457	538	675		290	443	178	437	516	9.3070	5.7128
96	F-714	" Mech-Tech	-019	-033	073	175	-031	202	308	163	142	189	290		716	423	544	-623	30.7868	12.3280
97	F-715	" Skilled Trades	001	043	224	184	069	213	280	203	267	189	443	716		550	808	-357	24.6507	12.8066
98	F-716	" Farming	004	038	160	126	077	258	527	082	109	051	178	423	550		485	-288	14.0781	6.8326
99	F-717	" Labc	015	033	229	089	047	176	255	243	285	166	437	544	808	485		-346	12.1425	6.4378

[a] From Subsample O. For a description, see Appendix A-1. The decimal point properly preceding each correlation coefficient has been omitted in this table.

[b] Point biserial correlations with sex for boys and girls combined. N=2,273.

TABLE 8-3

Means, Standard Deviations, and Intercorrelations of Girls' Scores on 44 Items in the Student Information Blank, 26 Subscores in the Information Test, 2 Achievement Tests, 10 Personality Scales in the Student Activities Blank, and 17 Scales in the Interest Inventory[a]

(N=1,185)

Var	Code	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	SIB-017	Model Building		315	303	265	235	035	068	103	012	163	084	083	069	085	045	022	077	021	040	124	115
2	SIB-020	Electrical Repair	315		327	281	344	-013	058	088	004	106	049	097	052	096	039	050	055	056	074	115	149
3	SIB-021	Woodworking	303	327		356	251	-013	007	025	026	120	013	055	006	081	047	000	119	019	073	125	164
4	SIB-022	Metal Working	265	281	356		274	034	030	019	063	180	094	060	030	096	124	-010	082	-031	063	104	076
5	SIB-023	Auto Repair	235	344	251	274		041	059	059	005	047	071	025	042	076	008	026	096	-050	027	154	162
6	SIB-042	Factory Work	035	-013	-013	034	041		-049	-036	-024	-015	-006	-019	-062	-019	057	016	032	-021	-051	-027	080
7	SIB-196	Hand Tools in the Home	068	058	007	030	059	-049		570	008	011	-004	034	077	170	026	021	066	066	064	097	135
8	SIB-197	Elec.Tools in the Home	103	088	025	019	059	-036	570		-007	053	029	027	033	220	024	071	060	070	052	083	127
9	SIB-003	Debate,Drama,Music Clubs	012	004	026	063	005	-024	008	-007		137	489	313	115	234	080	286	-029	-012	083	078	032
10	SIB-014	Drawing,Painting,etc.	163	106	120	180	047	-015	011	053	137		117	265	136	210	226	068	081	088	047	090	155
11	SIB-015	Acting,Singing,Dancing	084	049	013	094	071	-006	-004	029	489	117		271	056	219	068	257	023	035	036	080	039
12	SIB-030	Concerts,Plays,etc.	083	097	055	060	025	-019	034	027	313	265	271		201	312	115	165	048	061	-006	126	102
13	SIB-056	Number of Books Read	069	052	006	030	042	-002	077	033	115	136	056	201		117	036	041	056	038	-014	105	086
14	SIB-193	Musical Instruments,Hi-Fi,etc.	085	096	081	096	076	-019	170	220	234	210	219	312	117		119	160	-063	-065	-079	047	-011
15	SIB-288	Art Awards	045	039	047	124	008	057	026	024	080	226	068	115	036	119		304	055	046	-067	003	102
16	SIB-289	Music Awards	022	050	000	-010	026	016	021	071	286	068	257	165	041	160	304		040	033	056	071	068
17	SIB-025	Sewing,Knitting,etc.	077	055	119	082	096	032	066	060	-029	081	023	048	056	-063	055	040		458	118	252	329
18	SIB-026	Cooking	021	056	019	-031	-050	-021	066	070	-012	088	035	061	038	-065	046	033	458		135	181	337
19	SIB-005	Farm Youth Groups	040	074	073	063	027	-051	064	052	083	047	036	-006	-014	-079	-067	056	118	135		070	156
20	SIB-024	Caring for Animals	124	115	125	104	154	-027	097	083	078	090	080	126	105	047	003	071	252	181	070		298
21	SIB-028	Gardening,etc.	115	149	164	076	162	080	135	127	032	155	039	102	086	-011	102	068	329	337	156	298	
22	SIB-040	Farm Work	044	131	045	089	111	183	048	002	-008	039	022	024	013	-057	-007	-006	092	064	168	097	211
23	SIB-013	Capt.of Athletic Team	001	055	013	068	050	-034	075	032	007	054	031	061	-004	082	025	-018	-031	004	-012	019	-006
24	SIB-027	Baseball,Football,Basketball	109	157	169	087	131	-068	065	056	091	103	089	071	006	036	042	021	083	211	113	117	263
25	SIB-031	Golf,Tennis,Swimming	108	035	017	022	066	-039	063	027	145	142	148	212	069	200	020	076	012	087	-044	111	083
26	SIB-032	Track,Field,Hockey,etc.	121	099	155	114	146	023	033	050	048	120	127	095	072	099	059	-002	058	029	-000	052	112
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	078	057	063	029	121	-054	131	127	122	139	101	215	116	192	005	035	070	082	-008	162	187
28	SIB-194	Sports Equipment	074	048	030	039	082	-028	225	247	121	073	110	149	090	329	056	095	-021	-009	-033	105	047
29	SIB-230	Athletic Teams	041	064	046	039	088	-034	087	075	102	086	131	111	044	146	040	033	026	027	022	044	034
30	SIB-290	Athletics Awards	011	074	053	059	057	-004	058	065	027	063	091	025	-021	113	265	230	-030	014	-048	042	049
31	SIB-029	Hunting or Fishing	229	179	226	158	263	009	098	108	042	136	047	129	083	052	035	039	169	179	132	244	359
32	SIB-045	Camp Counselor	098	052	042	038	067	182	037	-001	060	001	135	094	039	142	017	060	-008	-024	-023	092	032
33	SIB-291	Activities Awards	032	023	026	012	017	013	059	011	162	059	159	121	057	131	269	302	047	035	041	012	061
34	SIB-011	President of a Class	057	038	048	037	025	043	041	035	114	068	145	142	079	118	058	079	045	014	070	016	010
35	SIB-012	Officer of a Class	035	053	044	038	-002	-047	068	008	248	112	267	223	091	171	059	170	007	013	089	052	040
36	SIB-231	Number of Clubs	020	021	-013	024	-032	-008	078	057	306	132	267	316	170	243	060	153	036	049	067	039	063
37	SIB-038	Odd Jobs	034	010	038	023	033	058	062	058	042	096	071	031	028	019	-008	022	098	193	-075	097	069
38	SIB-039	Clerical Work	003	065	042	-017	045	088	020	045	008	069	060	060	-013	099	026	041	034	-004	-018	-011	-013
39	SIB-043	Retail Store Work	032	034	045	033	089	124	002	000	-030	029	030	003	-045	-004	-002	022	003	001	-064	-036	-005
40	SIB-044	Sales Work	005	018	052	-001	081	075	040	033	019	067	037	020	-036	025	-009	-007	025	016	-053	-011	030
41	SIB-102	Business Courses	-039	-034	-060	-039	-062	-007	101	039	-111	-062	-098	-125	-092	-137	-067	-087	058	086	055	003	-024
42	SIB-058	Science Fiction Books	071	089	059	072	040	-005	-018	004	031	130	011	069	178	009	050	011	095	103	051	103	104
43	SIB-059	Science Books	086	101	105	041	064	053	-007	032	133	139	095	122	234	078	098	091	073	065	035	079	157
44	SIB-098	Science Courses	009	029	-015	012	-019	-027	024	-019	175	045	101	147	153	124	002	035	-013	-049	-080	020	-037
45	R-102	Info.I: Vocabulary I	039	002	-019	-034	-048	-072	120	045	169	099	081	261	258	205	033	076	-078	-106	-144	087	-044
46	R-103	" Literature	059	-030	-018	-058	-067	-109	067	-002	187	127	124	262	281	206	032	062	-120	-127	-161	062	-096
47	R-104	" Music	029	-034	-043	-049	-053	-079	066	009	295	059	211	331	230	349	069	177	-114	-106	-149	062	-110
48	R-105	" Social Studies	012	-039	-049	-086	-099	-102	081	018	147	057	086	222	267	154	-006	045	-107	-096	-092	065	-069
49	R-106	" Mathematics	017	040	-026	-032	-034	-052	055	041	194	046	112	244	193	216	-009	110	-044	-089	-085	033	-028
50	R-107	" Physical Science	072	027	-010	-022	-039	-077	108	062	211	097	121	220	230	188	017	090	-035	-068	-041	076	006
51	R-108	" Biological Science	050	-019	013	014	-061	-071	076	012	144	089	058	158	212	135	007	044	-070	-095	-006	097	-014
52	R-110	" Aero & Space	108	017	-002	003	-014	-057	117	089	137	110	049	107	160	167	037	083	-011	-029	-080	079	024
53	R-111	" Elec & Electron	104	072	045	039	-013	-029	155	146	109	057	046	149	148	164	023	075	-027	-033	-030	051	030
54	R-112	" Mechanical	088	064	026	029	040	-072	227	188	081	041	-013	074	185	108	001	045	-021	012	039	121	078
55	R-113	" Farming	018	-033	004	-017	-015	-088	210	120	050	025	019	054	206	032	008	060	-043	005	090	131	069
56	R-114	" Home Economics	-003	-027	-070	-024	-042	-075	175	097	061	039	-006	094	135	108	051	073	123	123	031	060	067
57	R-115	" Sports	018	008	010	-043	-036	-082	081	036	156	014	086	152	150	170	037	077	-080	-069	-064	042	-040
58	R-131	Info II: Art	018	-030	-019	-040	-062	-099	098	034	182	154	112	252	251	214	067	053	-093	-103	-210	095	-089
59	R-134	" Engineering	054	048	-036	-021	-053	-099	167	101	062	048	041	101	123	149	032	016	-060	-041	-033	031	-049
60	R-135	" Architecture	003	-030	-027	-020	-046	-059	071	016	142	090	075	159	146	145	055	078	-033	-062	-107	031	-006
61	R-139	" Acct,Bus,Sales	-019	-043	-078	-078	-066	-076	106	055	122	044	007	141	195	099	010	017	-063	-046	-104	024	-058
62	R-140	" Practical Knowledge	-001	-040	-075	-078	-033	-076	137	034	086	021	051	142	106	118	-029	021	-055	-035	-103	061	-068
63	R-141	" Clerical	-029	-062	-059	-113	-047	-048	102	041	027	-018	021	066	070	-005	027	-021	-030	023	-038	-041	-035
64	R-143	" Colors	-023	-021	-056	-029	-083	-078	089	028	127	087	061	153	130	173	032	071	-068	-063	-105	049	-095
65	R-145	" Hunting	021	-007	005	-009	019	023	095	108	-017	-014	-031	-050	057	002	014	001	-001	013	032	017	060
66	R-146	" Fishing	078	008	073	074	013	-017	014	047	-012	011	-022	-013	046	-039	048	035	049	063	-012	013	062
67	R-147	" Outdr Act (other)	-006	-041	-100	-030	-024	-076	125	091	127	069	082	136	141	144	012	084	-026	-056	-076	081	010
68	R-149	" Games	023	010	-004	-033	027	-049	028	-013	085	-035	050	081	107	085	-022	026	-068	-077	-100	-003	-063
69	R-150	" Theater,Ballet	-008	-046	-078	-075	-057	-121	109	070	163	045	130	207	227	193	031	032	-127	-099	-163	050	-159
70	R-151	" Foods	028	003	-014	-024	-023	-046	016	019	091	063	076	171	168	209	027	042	-086	-063	-170	055	-114
71	R-230	English Total	-028	-057	-048	-113	-104	-112	116	017	119	071	055	158	141	130	-034	028	-084	-101	-120	030	-091
72	R-312	Math II	021	017	-022	-094	-023	-052	088	034	190	067	095	215	158	166	-010	099	-051	-068	-056	053	-030
73	R-601	SAI: Sociability	-042	-025	-047	-018	022	-004	-007	-023	130	011	189	087	-057	063	048	089	-034	075	044	-018	-008
74	R-602	" Social Sensitivity	-012	040	018	006	043	-023	018	-023	177	113	140	132	077	122	040	060	028	070	023	033	045
75	R-603	" Impulsiveness	048	019	016	024	040	-018	022	022	046	073	114	082	117	121	032	024	-083	-051	014	017	-030
76	R-604	" Vigor	052	069	041	051	099	-031	089	060	224	051	215	147	074	154	018	145	007	072	039	041	082
77	R-605	" Calmness	055	050	065	025	048	014	068	034	158	086	085	133	080	122	051	090	062	102	029	036	084
78	R-606	" Tidiness	-013	003	002	006	033	008	047	008	114	077	068	114	-024	063	016	064	113	105	041	-017	089
79	R-607	" Culture	026	053	018	029	028	-019	029	012	233	182	185	291	164	231	085	134	060	065	012	031	103
80	R-608	" Leadership	079	075	090	130	094	039	037	-007	244	153	280	236	125	188	154	149	065	015	048	060	072
81	R-609	" Self-Confidence	038	011	-004	025	054	002	062	023	155	133	185	169	196	139	098	103	-015	044	-024	031	067
82	R-610	" Mature Personality	042	051	054	013	049	-011	087	025	212	114	186	210	155	103	040	119	118	121	026	068	165
83	F-701	Int Inv: Physical Science	148	196	155	126	126	-013	017	-021	160	145	088	182	160	090	043	066	079	001	018	106	161
84	F-702	" Biol.Sci & Med	109	108	084	095	086	-013	006	-027	195	151	127	207	193	115	046	041	032	011	-006	119	142
85	F-703	" Public Service	020	098	090	034	078	-037	-028	-047	145	091	143	222	125	091	-005	014	008	020	007	053	092
86	F-704	" Lit-Ling.	036	089	089	040	009	-040	-038	-042	272	212	173	351	304	157	041	072	063	028	-023	160	138
87	F-705	" Social Service	-013	054	031	015	028	036	-037	-052	136	046	122	196	056	009	-006	034	169	154	-015	087	177
88	F-706	" Artistic	056	048	104	086	023	-052	-014	002	234	413	122	307	179	219	140	055	042	-000	-007	128	113
89	F-707	" Musical	041	079	070	049	034	011	-017	004	400	196	317	317	163	272	086	246	034	-018	021	093	132
90	F-708	" Sports	106	121	141	051	139	-031	044	021	144	128	115	157	069	111	043	070	059	064	031	127	179
91	F-709	" Outdr. Rec.	196	156	177	100	162	-044	060	084	096	160	099	162	106	116	051	077	070	079	058	201	209
92	F-710	" Bus-Mgmt.	078	104	084	068	103	005	-018	006	133	099	145	180	084	046	-017	003	119	102	018	100	118
93	F-711	" Sales	047	079	050	054	084	017	-002	039	031	046	053	087	014	-005	010	-051	119	112	023	075	125
94	F-712	" Computation	025	093	077	-004	043	020	008	-018	-049	-031	-038	000	-072	-146	-066	-019	217	155	130	-006	137
95	F-713	" Office Work	-050	-043	007	-053	-014	039	-025	002	-149	-115	103	-152	-175	-226	-099	-060	157	187	106	-036	097
96	F-714	" Mech-Tech	215	210	240	118	210	-027	042	016	054	091	013	044	024	-001	037	-017	134	074	060	123	220
97	F-715	" Skilled Trades	146	149	257	135	136	-025	043	053	034	061	-005	002	-019	-029	030	-014	213	144	099	136	258
98	F-716	" Farming	153	118	203	104	145	-026	094	095	022	156	-005	098	082	071	037	023	165	114	062	251	317
99	F-717	" Labor	121	089	182	077	120	-041	047	042	009	007	008	-027	017	-045	003	009	143	147	065	142	204

TABLE 8-3 (continued)

Var	Code	Description	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
1	SIB-017	Model Building	044	001	109	108	121	078	074	041	011	229	098	032	057	035	020	034	003	032	005	-039	071
2	SIB-020	Electrical Repair	131	055	157	035	099	057	048	064	074	179	052	023	038	053	021	010	065	034	018	-034	089
3	SIB-021	Woodworking	045	013	169	017	155	063	030	046	053	226	042	026	048	044	-013	038	042	045	052	-060	059
4	SIB-022	Metal Working	089	008	087	022	114	029	039	039	059	158	038	012	037	038	024	023	-017	033	-001	-039	072
5	SIB-023	Auto Repair	111	050	131	066	146	121	082	088	057	263	067	017	025	-002	-032	033	045	089	081	-062	040
6	SIB-042	Factory Work	183	-034	-068	-039	023	-054	-028	-034	-004	009	182	013	043	-047	-008	058	088	124	075	-007	-005
7	SIB-196	Hand Tools in the Home	048	075	065	063	033	131	225	087	058	098	037	059	041	068	078	062	020	002	040	101	-018
8	SIB-197	Elec.Tools in the Home	002	032	056	027	050	127	247	075	065	108	-001	011	035	008	057	058	045	000	033	039	004
9	SIB-003	Debate,Drama,Music Clubs	-008	007	091	145	048	122	121	102	027	042	060	162	114	248	306	042	008	-030	019	-111	031
10	SIB-014	Drawing,Painting,etc.	039	054	103	142	120	139	073	086	063	136	001	059	068	112	132	096	069	029	067	-062	130
11	SIB-015	Acting,Singing,Dancing	022	031	089	148	127	101	110	131	091	047	135	159	145	267	267	071	060	030	037	-098	011
12	SIB-030	Concerts,Plays,etc.	024	061	071	212	095	215	149	111	025	129	094	121	142	223	316	031	060	003	020	-125	069
13	SIB-056	Number of Books Read	013	-004	006	069	072	116	090	044	-021	083	039	057	079	091	170	028	-013	-045	-036	-092	178
14	SIB-193	Musical Instruments,Hi-Fi,etc.	-057	082	036	200	099	192	329	146	113	052	142	131	118	171	243	019	099	-004	025	-137	009
15	SIB-288	Art Awards	-007	025	042	020	059	005	056	040	265	035	017	269	058	059	060	-008	026	-002	-009	-067	050
16	SIB-289	Music Awards	-006	-018	021	076	-002	035	095	033	230	039	060	302	079	170	153	022	041	022	-007	-087	011
17	SIB-025	Sewing,Knitting,etc.	092	-031	083	012	058	070	-021	026	-030	169	-008	047	045	007	036	098	034	003	025	058	095
18	SIB-026	Cooking	064	004	211	087	029	082	-009	027	014	179	-024	035	014	013	049	193	-004	001	016	086	103
19	SIB-005	Farm Youth Groups	168	-012	113	-044	-000	-008	-033	022	-048	132	-023	041	070	089	067	-075	-018	-064	-053	055	051
20	SIB-024	Caring for Animals	097	019	117	111	052	162	105	044	042	244	092	012	016	052	039	097	-011	-036	-011	003	103
21	SIB-028	Gardening,etc.	211	-006	263	083	112	187	047	034	049	359	032	061	010	040	063	069	-013	-005	030	-024	104
22	SIB-040	Farm Work		007	113	-066	089	061	-038	009	-027	127	055	-027	-007	012	-043	093	037	087	-006	000	085
23	SIB-013	Capt.of Athletic Team	007		172	101	097	085	078	265	190	069	053	013	244	196	050	003	061	005	039	037	-012
24	SIB-027	Baseball,Football,Basketball	113	172		180	292	226	080	376	269	283	069	115	097	107	096	110	026	031	040	-058	055
25	SIB-031	Golf,Tennis,Swimming	-066	101	180		163	491	247	191	147	201	094	181	051	097	202	135	075	054	121	-011	087
26	SIB-032	Track,Field,Hockey,etc.	089	097	232	163		238	092	282	180	219	097	106	069	049	062	025	090	076	090	-067	066
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	061	085	226	491	238		268	194	138	275	092	138	018	082	138	196	077	097	142	-092	073
28	SIB-194	Sports Equipment	-038	078	080	247	092	268		161	158	220	070	105	042	119	205	075	026	031	074	-083	032
29	SIB-230	Athletic Teams	009	265	376	191	282	194	161		343	115	096	143	132	143	225	087	039	055	068	-055	007
30	SIB-290	Athletics Awards	-027	190	269	147	180	138	158	343		088	142	328	070	085	123	048	086	083	024	-075	010
31	SIB-029	Hunting or Fishing	127	069	283	201	219	275	220	115	088		073	030	016	004	042	090	030	106	096	-020	086
32	SIB-045	Camp Counselor	055	053	069	094	097	092	070	096	142	073		138	074	067	092	066	147	105	068	-085	036
33	SIB-291	Activities Awards	-027	013	115	181	106	138	105	143	328	030	138		100	163	173	055	071	040	036	-051	008
34	SIB-011	President of a Class	-007	244	097	051	069	018	042	132	070	016	074	100		351	250	-011	101	018	021	-032	035
35	SIB-012	Officer of a Class	012	196	107	097	049	082	119	143	085	004	067	163	351		408	019	026	-003	026	-041	-005
36	SIB-231	Number of Clubs	-043	050	096	202	062	138	205	225	123	042	092	173	250	408		119	075	013	028	-099	007
37	SIB-038	Odd Jobs	093	003	110	135	025	196	075	087	048	090	066	055	-011	019	119		148	159	116	014	013
38	SIB-039	Clerical Work	037	061	026	075	090	077	026	039	086	030	147	071	101	026	075	148		150	164	113	032
39	SIB-043	Retail Store Work	087	005	031	054	076	097	031	055	083	106	105	040	018	-003	013	159	150		530	023	-033
40	SIB-044	Sales Work	-006	039	040	121	090	142	074	068	024	096	068	036	021	026	028	116	164	530		056	007
41	SIB-102	Business Courses	090	037	-058	-011	-067	-092	-083	-055	-075	-020	-085	-051	-032	-041	-099	014	113	023	056		-094
42	SIB-058	Science Fiction Books	085	-012	055	087	066	073	032	007	010	086	036	008	035	-005	007	013	032	-033	007	-094	
43	SIB-059	Science Books	050	-003	087	071	082	089	063	027	014	091	102	098	083	093	086	009	005	010	031	-138	437
44	SIB-098	Science Courses	-026	-013	-005	055	008	037	076	072	014	-029	057	089	063	206	206	049	-131	-029	-020	-274	027
45	R-102	Info.I: Vocabulary I	-085	027	-087	161	-027	111	147	079	009	-055	070	092	023	229	278	011	-039	-008	-002	-115	-076
46	R-103	" Literature	-080	008	-069	144	-001	128	144	065	-011	-065	060	084	024	220	262	035	-053	-042	-036	-161	-059
47	R-104	" Music	-112	005	-065	175	-019	086	166	050	043	-044	111	137	056	257	301	006	028	-055	-028	-128	-063
48	R-105	" Social Studies	-096	-003	-053	126	-045	093	117	083	-016	-057	044	056	033	214	250	000	-067	-049	-037	-126	-064
49	R-106	" Mathematics	-066	006	-021	082	-027	081	158	101	011	-050	049	090	062	249	330	029	-085	-026	-044	-329	-051
50	R-107	" Physical Science	-026	011	-021	120	-003	103	158	115	-005	-015	033	095	049	218	275	013	-133	-055	-028	-258	-013
51	R-108	" Biological Science	-035	-005	-082	035	-042	026	136	025	008	-009	023	016	004	168	193	-050	-072	-045	-023	-161	-014
52	R-110	" Aero & Space	-022	007	-034	100	009	094	103	092	034	008	025	057	052	110	148	-008	-008	-029	000	-066	039
53	R-111	" Elec & Electron	-005	024	-012	072	-033	039	106	040	016	037	040	060	037	153	178	018	-038	000	-006	-132	006
54	R-112	" Mechanical	024	025	069	091	-029	107	216	064	030	108	002	049	-001	138	137	-012	-064	023	004	008	-040
55	R-113	" Farming	065	003	-020	026	-066	045	157	025	-022	093	017	055	-007	142	151	-015	-097	-047	-080	075	-059
56	R-114	" Home Economics	-002	037	-070	061	-093	044	090	-006	-056	006	-003	060	015	119	151	068	-048	-062	-057	034	-081
57	R-115	" Sports	-041	060	087	146	018	123	253	199	092	039	033	121	019	174	223	054	-052	-029	-019	-120	-023
58	R-131	Info II: Art	-103	034	-049	228	-020	130	152	094	017	-035	031	070	037	158	244	057	021	-025	001	-089	-034
59	R-134	" Engineering	-009	070	-022	118	-007	092	147	073	027	027	-022	029	042	122	128	004	-058	-006	016	032	-044
60	R-135	" Architecture	-042	000	-067	118	-019	093	091	039	-039	-010	-013	028	-010	122	186	012	-034	-033	-004	-066	-020
61	R-139	" Acct,Bus,Sales	-061	-000	-093	148	-057	062	065	044	-032	-068	009	031	005	120	178	063	015	004	047	097	-098
62	R-140	" Practical Knowledge	-079	058	-010	202	-036	120	149	076	033	003	046	062	009	157	183	056	049	016	055	018	-007
63	R-141	" Clerical	-078	038	-038	093	-041	070	068	-002	-050	000	-022	001	025	080	046	010	028	008	044	186	-049
64	R-143	" Colors	-092	000	-091	142	-059	061	100	037	-001	005	042	038	-007	102	177	-007	-044	-036	014	-062	-090
65	R-145	" Hunting	057	035	039	-053	008	022	090	008	-023	112	003	-045	012	048	042	002	009	-029	-041	042	-063
66	R-146	" Fishing	020	-011	002	-010	032	-014	072	-010	008	174	-049	-036	-047	-019	-044	-026	-114	-006	-022	-000	027
67	R-147	" Outdr Act (other)	-061	051	008	191	008	210	223	114	057	026	044	111	019	117	184	081	-027	-013	-006	-020	-057
68	R-149	" Games	-095	049	-022	126	052	069	105	070	001	-008	012	027	048	105	083	022	-019	-037	-013	-017	-033
69	R-150	" Theater,Ballet	-158	-004	-105	178	-049	082	109	106	-001	-091	046	105	032	126	229	044	-004	-040	-035	-072	-032
70	R-151	" Foods	-129	046	-066	203	024	095	156	092	049	-066	100	091	038	104	181	052	075	-000	056	-124	-046
71	R-230	English Total	-058	015	-052	128	-076	111	113	024	-054	-096	-043	030	021	202	263	018	-013	-051	-014	017	-122
72	R-312	Math II	-049	-007	-006	091	-046	091	134	072	-012	-049	043	096	036	250	332	026	-083	-024	-042	-266	-059
73	R-601	SAI: Sociability	006	105	139	171	075	137	125	129	120	025	050	095	133	167	173	041	100	067	084	010	025
74	R-602	" Social Sensitivity	-037	056	047	124	013	067	069	089	044	010	054	056	133	189	168	059	081	024	038	-026	011
75	R-603	" Impulsiveness	002	009	035	087	040	095	118	085	006	028	107	069	061	064	100	-051	093	052	058	-032	050
76	R-604	" Vigor	048	131	274	211	144	222	172	237	170	121	116	139	159	211	201	043	039	042	045	-034	056
77	R-605	" Calmness	023	039	054	103	-007	087	089	114	025	074	060	069	164	203	178	025	035	017	023	-031	042
78	R-606	" Tidiness	-006	005	012	095	-010	057	048	001	001	051	-030	035	083	097	115	001	056	014	014	045	002
79	R-607	" Culture	-029	-008	045	134	040	098	126	074	039	030	048	105	132	229	249	005	052	-003	-007	-073	064
80	R-608	" Leadership	009	072	153	102	120	089	080	164	100	110	114	194	301	347	269	-003	107	097	063	-093	072
81	R-609	" Self-Confidence	-015	125	126	131	086	132	140	174	140	085	103	174	191	257	202	028	033	016	053	-061	090
82	R-610	" Mature Personality	023	063	110	092	048	086	073	139	044	090	041	113	182	234	263	054	088	056	065	024	052
83	F-701	Int Inv: Physical Science	045	-008	147	108	138	107	041	114	025	136	081	099	098	152	207	047	-012	065	033	-228	093
84	F-702	" Biol.Sci & Med	036	019	128	150	126	154	116	117	040	132	122	097	082	166	208	056	-024	044	044	-256	065
85	F-703	" Public Service	-006	011	137	142	129	126	059	143	044	089	065	081	100	167	220	079	086	075	079	-146	010
86	F-704	" Lit-Ling.	-021	001	071	121	120	103	077	077	-036	071	064	071	126	210	295	070	013	027	029	-157	075
87	F-705	" Social Service	001	-005	129	067	060	107	038	067	003	075	076	092	146	213	251	162	046	080	075	-144	012
88	F-706	" Artistic	-012	007	056	137	110	146	116	070	-032	100	010	036	042	142	233	038	008	-016	003	-134	034
89	F-707	" Musical	-009	-045	032	076	096	070	067	073	-030	049	044	067	120	177	237	-005	002	-012	-034	-147	043
90	F-708	" Sports	046	081	442	284	297	284	141	273	208	286	089	137	056	141	187	099	009	064	054	-124	012
91	F-709	" Outdr. Rec.	110	-012	261	183	205	230	140	148	114	483	085	053	-014	049	099	065	-017	078	070	-103	050
92	F-710	" Bus-Mgmt.	036	032	148	139	147	112	023	116	-020	113	058	048	100	155	187	133	091	114	161	-027	066
93	F-711	" Sales	030	034	092	073	106	074	043	032	-002	095	023	007	030	024	077	101	050	179	195	-042	-025
94	F-712	" Computation	090	021	118	-008	011	-052	-105	-007	-033	055	-027	014	056	056	012	085	092	101	129	207	014
95	F-713	" Office Work	048	-013	066	-087	-033	-098	-190	-081	-038	018	-081	-057	-022	-106	-157	066	119	079	099	362	-001
96	F-714	" Mech-Tech	104	-034	162	037	162	081	-021	089	-019	189	025	030	-016	017	043	041	-020	081	052	-090	064
97	F-715	" Skilled Trades	161	-025	160	-008	175	075	-037	056	-004	179	018	010	-041	-016	-008	095	-046	077	048	-033	012
98	F-716	" Farming	189	-026	234	104	159	193	049	137	055	313	051	059	-062	036	071	097	-074	048	000	-076	021
99	F-717	" Labor	146	-013	133	-028	130	075	-010	048	-002	139	013	-002	-053	-046	-043	135	-012	086	025	-003	004

TABLE B-3 (continued)

Var	Code	Description	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
1	SIB-017	Model Building	086	009	039	059	029	012	017	072	050	108	104	088	018	-003	018	018	054	003	-019	-001	-029
2	SIB-020	Electrical Repair	101	029	002	-030	-034	-039	040	027	-019	017	072	064	-033	-027	008	-030	048	-030	-043	-040	-062
3	SIB-021	Woodworking	105	-015	-019	-018	-043	-049	-026	-010	013	-002	045	026	004	-070	010	-019	-036	-027	-078	-075	-059
4	SIB-022	Metal Working	041	012	-034	-058	-049	-086	-032	-022	014	003	039	029	-017	-024	-043	-040	-021	-020	-078	-078	-113
5	SIB-023	Auto Repair	064	-019	-048	-067	-053	-099	-034	-039	-061	-014	-013	040	-015	-042	-036	-062	-053	-046	-066	-033	-047
6	SIB-042	Factory Work	053	-027	-072	-109	-079	-102	-052	-077	-071	-057	-029	-072	-083	-075	-082	-099	-099	-059	-076	-076	-048
7	SIB-196	Hand Tools in the Home	-007	024	120	067	066	081	055	108	076	117	155	227	210	175	081	098	167	071	106	137	102
8	SIB-197	Elec.Tools in the Home	032	-019	045	-002	009	018	041	062	012	089	146	188	120	097	036	034	101	016	055	034	041
9	SIB-003	Debate,Drama,Music Clubs	133	175	169	167	295	147	194	211	144	137	109	081	090	061	156	182	062	142	122	086	027
10	SIB-014	Drawing,Painting,etc.	139	045	099	127	059	057	046	097	089	110	057	041	025	039	014	154	048	090	044	021	-018
11	SIB-015	Acting,Singing,Dancing	095	101	081	124	211	086	112	121	058	049	046	-013	019	-006	086	112	041	075	007	051	021
12	SIB-030	Concerts,Plays,etc.	122	147	261	262	331	222	244	220	158	107	149	074	054	094	152	252	101	159	141	142	066
13	SIB-056	Number of Books Read	234	153	258	281	230	267	193	230	212	160	148	185	206	135	150	251	123	146	195	106	070
14	SIB-193	Musical Instruments,Hi-Fi,etc.	078	124	205	206	349	154	216	188	135	167	164	108	032	108	170	214	149	145	099	118	-005
15	SIB-288	Art Awards	098	002	033	032	069	-006	-008	017	007	037	023	001	008	051	037	067	032	055	010	-029	027
16	SIB-289	Music Awards	091	035	076	062	177	045	110	090	044	083	075	045	050	073	077	055	016	078	017	021	-021
17	SIB-025	Sewing,Knitting,etc.	073	-013	-078	-120	-114	-107	-044	-035	-070	-011	-027	-021	-043	123	-080	-093	-060	-033	-063	-055	-030
18	SIB-026	Cooking	065	-049	-106	-127	-106	-096	-089	-068	-095	-029	-033	012	005	123	-069	-103	-041	-062	-046	-035	023
19	SIB-005	Farm Youth Groups	035	-080	-144	-161	-149	-092	-085	-041	-006	-080	-030	039	090	031	-064	-210	-033	-107	-104	-103	-038
20	SIB-024	Caring for Animals	079	020	087	062	062	065	033	076	097	079	051	121	131	060	042	095	031	031	024	061	-041
21	SIB-028	Gardening,etc.	157	-037	-044	-096	-110	-069	-028	006	-014	024	030	078	069	067	-040	-089	-049	-006	-058	-068	-035
22	SIB-040	Farm Work	050	-026	-085	-080	-112	-090	-066	-026	-035	-022	-005	024	065	-002	-041	-103	-009	-042	-061	-079	-078
23	SIB-013	Capt.of Athletic Team	-003	-013	027	008	005	-003	006	011	-005	007	024	025	003	037	060	034	070	000	-000	058	038
24	SIB-027	Baseball,Football,Basketball	087	-005	-087	-069	-065	-053	-021	-021	-082	-034	-012	009	-020	-070	087	-049	-022	-067	-053	-010	-02
25	SIB-031	Golf,Tennis,Swimming	071	055	161	144	175	126	082	120	035	100	072	091	026	061	146	228	118	118	148	202	093
26	SIB-032	Track,Field,Hockey,etc.	082	008	-027	-001	-019	-045	-027	-003	-042	009	-033	-029	-066	-093	018	-020	-007	-019	-057	-036	-041
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	089	037	111	123	086	093	081	103	026	094	039	107	045	044	123	130	092	093	062	170	070
28	SIB-194	Sports Equipment	063	076	147	144	166	117	158	158	136	103	106	216	157	090	253	152	147	091	065	149	068
29	SIB-230	Athletic Teams	027	072	079	065	050	083	103	115	025	092	040	064	025	-006	199	094	073	039	044	076	-002
30	SIB-290	Athletics Awards	014	014	009	-011	043	-016	011	-005	008	034	014	030	-022	-056	092	017	027	-039	-032	033	-050
31	SIB-029	Hunting or Fishing	091	-029	-055	-065	-044	-057	-050	-015	-009	008	037	108	093	006	039	-035	027	-010	-068	003	000
32	SIB-045	Camp Counselor	102	057	070	060	111	044	049	033	023	025	040	002	017	-003	033	031	-022	-013	009	046	-022
33	SIB-291	Activities Awards	093	089	092	084	137	056	090	095	016	057	060	049	055	060	121	070	029	028	031	062	001
34	SIB-011	President of a Class	083	063	023	024	056	033	062	049	004	052	037	-001	-007	015	019	037	042	-010	005	009	025
35	SIB-012	Officer of a Class	093	206	229	220	257	214	249	218	168	110	153	138	142	119	174	158	122	122	120	157	080
36	SIB-231	Number of Clubs	086	206	278	262	301	250	330	275	193	148	178	137	151	151	221	244	128	186	178	183	046
37	SIB-038	Odd Jobs	009	049	011	035	006	000	029	013	-050	-008	018	-012	-015	068	054	057	004	012	063	056	010
38	SIB-039	Clerical Work	005	-131	-039	-053	028	-067	-085	-113	-072	-008	-038	-064	-097	-048	-052	021	-058	-034	015	049	028
39	SIB-043	Retail Store Work	010	-029	-008	-042	-055	-049	-026	-055	-045	-029	000	023	-047	-062	-029	-025	-006	-033	004	016	008
40	SIB-044	Sales Work	031	-029	-002	-036	-028	-037	-044	-028	-023	000	-006	004	-080	-057	-019	001	018	-004	047	055	044
41	SIB-102	Business Courses	-138	-274	-115	-161	-120	-126	-329	-258	-161	-066	-132	008	075	034	-120	-089	032	-066	097	018	186
42	SIB-058	Science Fiction Books .	437	027	-07	-059	-063	-064	-051	-013	-014	039	006	-040	-059	-081	-023	-034	-044	-020	-098	-007	-049
43	SIB-059	Science Books		112	019	027	024	-008	063	078	049	061	049	011	-022	-020	001	017	-016	056	-033	-027	-089
44	SIB-098	Science Courses	112		392	337	321	353	529	566	346	183	360	216	210	159	222	276	217	222	148	147	011
45	R-102	Info.I: Vocabulary I	019	398		724	670	732	645	685	597	434	494	496	490	452	488	651	450	429	553	416	290
46	R-103	" Literature	027	337	724		682	737	601	629	559	405	435	400	427	346	468	670	364	464	501	343	253
47	R-104	" Music	024	321	670	682		656	534	550	493	377	403	381	390	353	504	621	358	430	502	377	265
48	R-105	" Social Studies	-008	353	732	737	656		586	653	592	365	458	453	477	425	506	636	390	419	545	398	289
49	R-106	" Mathematics	063	529	645	601	534	586		714	500	320	477	386	330	300	408	476	350	386	396	280	163
50	R-107	" Physical Science	078	566	685	629	550	653	714		620	449	548	480	440	412	448	519	395	414	416	291	190
51	R-108	" Biological Science	049	346	597	559	493	592	500	620		363	418	445	482	405	377	486	347	322	349	267	200
52	R-110	" Astro & Space	061	183	434	405	377	365	320	449	363		365	365	288	227	356	362	289	296	253	165	133
53	R-111	" Elec & Electron	049	360	494	435	403	458	477	548	418	365		432	360	317	360	376	341	314	336	252	159
54	R-112	" Mechanical	011	216	496	400	381	453	386	480	445	365	432		520	432	417	398	400	279	358	266	257
55	R-113	" Farming	-022	210	490	427	390	477	330	440	482	288	360	520		462	421	409	415	264	392	313	313
56	R-114	" Home Economics	-020	159	452	346	353	425	300	412	405	227	317	432	462		315	367	300	263	366	246	290
57	R-115	" Sports	001	222	488	468	504	506	408	448	377	356	360	417	421	315		413	312	304	357	308	222
58	R-131	Info II: Art	017	276	651	670	621	636	476	519	466	362	376	398	409	347	413		395	420	515	417	329
59	R-134	" Engineering	-016	217	450	364	358	390	350	395	347	289	341	400	415	300	312	395		290	344	300	291
60	R-135	" Architecture	056	222	429	464	430	419	386	414	322	296	314	279	264	263	304	420	290		348	268	169
61	R-139	" Acct,Bus,Sales	-033	148	553	501	502	545	396	416	349	253	336	358	392	366	357	515	344	348		378	366
62	R-140	" Practical Knowledge	-027	147	416	343	377	398	280	291	267	165	252	266	313	246	308	417	300	268	378		349
63	R-141	" Clerical	-089	011	290	253	265	289	163	190	200	133	159	257	313	290	222	329	291	169	366	349	
64	R-143	" Colors	-035	194	447	404	425	443	375	377	366	202	269	269	306	357	292	437	271	260	387	268	227
65	R-145	" Hunting	006	-051	044	024	032	051	015	068	071	091	095	163	167	085	080	062	140	088	061	056	076
66	R-146	" Fishing	-009	-025	037	080	034	045	020	071	092	113	098	126	117	045	093	058	128	073	053	-006	041
67	R-147	" Outdr Act (other)	-008	256	510	441	448	471	393	434	404	311	330	417	399	361	404	478	347	280	387	366	306
68	R-149	" Games	-008	124	278	278	232	261	238	233	129	149	186	173	182	142	223	275	184	161	233	214	191
69	R-150	" Theater,Ballet	-002	223	602	581	602	581	406	454	395	323	340	331	395	290	445	612	357	365	492	409	369
70	R-151	" Foods	004	205	509	455	475	436	370	378	296	229	259	227	221	305	308	492	210	278	399	315	221
71	R-230	English Total	-039	249	615	577	508	567	498	466	437	243	298	329	397	334	356	506	329	328	441	362	336
72	R-312	Math II	032	487	592	544	464	548	804	640	471	263	424	324	323	275	352	421	320	318	365	276	167
73	R-601	SAI: Sociability	020	025	-026	000	036	-045	-021	-018	-043	-035	-067	-002	-023	-012	035	024	024	-066	-003	104	118
74	R-602	" Social Sensitivity	096	077	135	127	112	069	064	079	089	026	040	041	049	074	034	115	073	057	091	143	118
75	R-603	" Impulsiveness	077	019	122	169	109	100	067	103	100	095	060	099	083	017	090	165	086	039	075	059	116
76	R-604	" Vigor	097	097	080	088	089	057	100	119	064	064	102	091	062	046	165	086	083	034	036	137	068
77	R-605	" Calmness	097	149	154	126	123	124	093	154	125	109	128	135	131	111	111	126	112	060	082	121	134
78	R-606	" Tidiness	041	007	-012	-032	-005	-032	-035	-043	-017	-043	-003	-016	-004	033	020	-005	024	013	029	107	126
79	R-607	" Culture	128	113	147	152	173	109	116	140	140	092	088	067	073	065	104	153	074	102	112	134	096
80	R-608	" Leadership	185	109	076	070	098	039	104	099	061	068	035	008	-031	-002	057	039	020	023	016	030	-001
81	R-609	" Self-Confidence	112	161	128	126	110	112	129	168	109	120	081	103	081	065	139	141	114	032	088	130	113
82	R-610	" Mature Personality	141	154	185	187	155	160	190	188	137	111	134	140	132	137	142	158	127	090	154	175	143
83	F-701	Int Inv: Physical Science	195	354	281	210	192	247	392	392	253	220	270	193	110	121	173	192	152	122	139	084	-042
84	F-702	" Biol.Sci & Med	191	374	265	222	213	207	289	318	225	134	205	173	107	107	160	183	104	133	100	082	-048
85	F-703	" Public Service	086	131	152	189	162	191	198	161	084	076	114	013	-002	001	153	159	049	106	123	081	-053
86	F-704	" Lit-Ling.	142	197	353	402	346	336	331	310	253	210	188	138	129	108	234	347	149	230	222	127	041
87	F-705	" Social Service	087	138	090	110	101	070	153	076	036	-022	044	-024	-016	011	069	066	013	037	072	047	005
88	F-706	" Artistic	098	130	314	343	302	290	242	287	289	205	205	176	181	197	190	348	155	249	182	138	054
89	F-707	" Musical	131	157	218	255	354	211	270	252	185	204	157	111	072	055	166	201	119	180	097	013	-022
90	F-708	" Sports	088	122	161	162	162	145	199	166	092	104	098	123	080	007	260	112	124	103	080	053	-009
91	F-709	" Outdr. Rec.	091	139	140	140	150	128	111	178	144	155	151	177	129	069	140	113	105	084	007	040	-040
92	F-710	" Bus-Mgmt.	070	009	038	042	049	029	081	020	-022	023	030	-023	-052	-036	076	050	017	011	098	034	-013
93	F-711	" Sales	-001	-062	-035	-036	-016	-015	-016	-032	-047	001	006	-011	-037	025	017	-007	-010	-009	057	-003	-014
94	F-712	" Computation	-015	-094	-132	-209	-168	-137	-011	-085	-105	-090	-017	-039	-083	013	-081	-183	-012	-099	036	-037	026
95	F-713	" Office Work	-104	-313	-340	-367	-311	-331	-333	-358	-272	-192	-203	-174	-139	-138	-230	-308	-133	-229	-124	-107	055
96	F-714	" Mech-Tech	086	101	050	033	016	044	103	131	073	132	118	123	052	036	063	013	065	021	016	-033	-042
97	F-715	" Skilled Trades	-003	-037	-058	-060	-066	-060	-020	-006	-001	039	-012	034	009	032	006	-077	-010	-029	-051	-083	-075
98	F-716	" Farming	033	093	148	143	112	123	130	189	169	196	170	196	205	100	138	113	127	093	049	041	-032
99	F-717	" Labor	-011	-055	-048	-041	-040	-031	-022	-013	-018	006	-001	054	059	036	041	-063	020	-027	-009	-067	-047

TABLE 8-3 (continued)

Var	Code	Description	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
1	SIB-017	Model Building	-023	021	078	-066	023	-008	028	-028	021	-042	-012	048	052	055	-013	026	079	038	042	148	109
2	SIB-020	Electrical Repair	-021	-007	008	-041	010	-046	003	-057	017	-025	040	019	069	050	003	053	075	011	051	196	108
3	SIB-021	Woodworking	-056	005	073	-100	004	-073	-014	-048	-022	-047	018	016	041	065	002	018	090	-004	054	155	084
4	SIB-022	Metal Working	-029	-009	074	-030	033	-075	-024	-113	-094	-018	006	024	051	025	006	029	130	025	013	126	095
5	SIB-023	Auto Repair	-083	019	013	-024	027	-057	-023	-104	-023	022	043	040	099	048	033	028	094	054	049	126	086
6	SIB-042	Factory Work	-078	023	-017	-076	-049	-121	-046	-112	-052	-004	-023	-018	-031	014	008	-019	039	002	-011	-013	-013
7	SIB-196	Hand Tools in the Home	089	095	014	125	028	109	016	116	088	-007	018	002	089	068	047	029	037	062	087	017	006
8	SIB-197	Elec.Tools in the Home	028	108	047	091	-013	070	019	017	034	-023	-023	002	060	034	008	012	-007	023	025	-021	-027
9	SIB-003	Debate,Drama,Music Clubs	127	-017	-012	127	085	163	091	119	190	130	177	046	224	158	114	233	244	195	212	160	195
10	SIB-014	Drawing,Painting,etc.	087	-014	011	069	-035	045	063	071	067	011	113	073	051	086	077	182	153	133	114	145	151
11	SIB-015	Acting,Singing,Dancing	061	-031	-022	082	050	130	076	055	095	189	140	114	215	085	068	185	280	185	186	088	127
12	SIB-030	Concerts,Plays,etc.	153	-050	-013	136	081	207	171	158	215	087	132	082	147	133	114	291	236	169	210	182	207
13	SIB-056	Number of Books Read	130	057	046	141	107	227	168	141	158	-057	077	117	074	080	-024	164	125	196	155	160	193
14	SIB-193	Musical Instruments,Hi-Fi,etc.	173	002	-039	144	085	193	209	130	166	063	122	121	154	122	063	231	188	139	103	090	115
15	SIB-288	Art Awards	032	014	048	012	-022	031	027	-034	-010	048	040	032	018	051	016	085	154	098	040	043	046
16	SIB-289	Music Awards	071	001	035	084	026	032	042	028	099	089	060	024	145	090	064	134	149	103	119	066	041
17	SIB-025	Sewing,Knitting,etc.	-068	-001	049	-026	-068	-127	-086	-084	-051	-034	028	-083	007	062	113	060	065	-015	118	079	032
18	SIB-026	Cooking	-063	013	063	-056	-077	-099	-063	-101	-068	075	070	-051	072	102	105	065	015	044	121	001	011
19	SIB-005	Farm Youth Groups	-105	032	-012	-076	-100	-163	-170	-120	-056	044	023	014	039	029	041	012	048	-024	026	018	-006
20	SIB-024	Caring for Animals	049	017	013	081	-003	050	055	030	053	-018	033	017	041	036	-017	031	060	031	068	106	119
21	SIB-028	Gardening,etc.	-095	060	062	010	-063	-159	-114	-091	-030	-008	045	-080	082	084	089	103	072	067	165	161	142
22	SIB-040	Farm Work	-092	057	020	-061	-095	-158	-129	-058	-049	006	-037	002	048	023	-006	-029	009	-015	023	045	036
23	SIB-013	Capt.of Athletic Team	000	035	-011	051	049	-004	046	015	-007	105	056	009	131	039	005	-008	072	125	063	-008	019
24	SIB-027	Baseball,Football,Basketball	-091	039	002	008	-022	-105	-066	-052	-006	130	047	035	274	054	012	045	153	126	110	147	128
25	SIB-031	Golf,Tennis,Swimming	142	-053	-010	191	126	178	203	128	091	171	124	087	211	103	095	134	102	131	092	108	150
26	SIB-032	Track,Field,Hockey,etc.	-059	008	032	008	052	-049	024	-076	-046	075	013	040	144	-007	-010	040	120	086	048	138	126
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	061	022	-014	210	069	082	095	111	091	137	067	095	222	087	057	098	089	132	086	107	154
28	SIB-194	Sports Equipment	100	090	072	223	105	109	156	113	134	125	069	118	172	089	048	126	080	140	073	041	116
29	SIB-230	Athletic Teams	037	008	-010	114	070	106	092	024	072	129	089	085	237	114	001	074	164	174	139	114	117
30	SIB-290	Athletics Awards	-001	023	008	057	001	-001	049	-054	-012	120	044	006	170	025	001	039	100	140	044	025	040
31	SIB-029	Hunting or Fishing	055	112	174	026	-008	-091	-066	-096	-049	025	010	028	127	074	051	030	110	085	090	136	132
32	SIB-045	Camp Counselor	042	003	-049	044	012	046	100	-043	043	056	054	107	116	060	-030	048	114	103	041	081	122
33	SIB-291	Activities Awards	038	-045	-036	111	027	105	091	030	096	095	056	069	139	069	035	105	194	174	113	099	097
34	SIB-011	President of a Class	-007	012	-047	019	048	032	038	021	036	133	133	061	159	164	083	132	301	191	182	098	082
35	SIB-012	Officer of a Class	102	048	-019	117	105	126	104	202	250	167	189	064	211	203	097	229	347	257	234	152	166
36	SIB-231	Number of Clubs	177	042	-044	184	083	229	181	263	332	173	168	100	201	178	115	249	269	202	263	207	208
37	SIB-038	Odd Jobs	-007	002	-026	081	022	044	052	018	026	041	059	-051	043	025	001	005	-003	028	054	047	056
38	SIB-039	Clerical Work	-044	009	-114	-027	-019	-004	075	-013	-083	100	081	093	039	035	056	052	107	033	088	-012	-024
39	SIB-043	Retail Store Work	-036	-029	-006	-013	-037	-040	-000	-051	-024	067	024	052	042	017	014	-003	097	016	056	065	044
40	SIB-044	Sales Work	014	-041	-022	-006	-013	-035	056	-014	-042	084	038	058	045	023	014	-007	063	053	065	033	044
41	SIB-102	Business Courses	-062	042	-000	-020	-017	-072	-124	017	-266	010	-026	-032	-034	-031	045	-073	-093	-061	024	-228	-256
42	SIB-058	Science Fiction Books	-090	-063	027	-057	-033	-032	-046	-122	-059	025	011	050	056	042	002	064	072	090	052	093	065
43	SIB-059	Science Books	-035	006	-009	-008	-008	-002	004	-039	032	020	096	077	097	097	041	128	185	112	141	195	191
44	SIB-098	Science Courses	194	-051	-025	256	124	223	205	249	487	025	077	019	097	149	007	113	109	161	154	354	374
45	R-102	Info.I: Vocabulary I	447	044	037	510	278	602	509	615	592	-026	135	122	080	154	-012	147	076	128	185	281	265
46	R-103	" Literature	404	024	080	441	278	581	455	577	544	000	127	169	088	126	-032	152	070	126	187	210	222
47	R-104	" Music	425	032	034	448	232	602	475	508	464	036	112	109	089	123	-005	173	098	110	155	192	213
48	R-105	" Social Studies	443	051	045	471	261	581	436	567	548	-045	069	100	057	124	-032	109	039	112	160	247	207
49	R-106	" Mathematics	375	015	020	393	238	406	370	498	804	-021	064	067	100	093	-035	116	104	129	190	392	289
50	R-107	" Physical Science	377	068	071	434	233	454	378	466	640	-018	079	103	119	154	-043	140	099	168	188	392	318
51	R-108	" Biological Science	366	071	092	404	129	395	296	437	471	-043	089	100	064	125	-017	140	061	109	137	253	225
52	R-110	" Aero & Space	202	091	113	311	149	323	229	243	263	-035	026	095	064	109	-043	092	068	120	111	220	134
53	R-111	" Elec & Electron	269	095	098	330	186	340	259	298	424	-067	040	060	102	128	-003	088	035	081	134	270	205
54	R-112	" Mechanical	269	163	126	417	173	331	227	329	324	-002	041	099	091	135	-016	067	008	103	140	193	173
55	R-113	" Farming	306	167	117	399	182	395	221	397	323	-023	049	083	062	131	-004	073	-031	081	132	110	107
56	R-114	" Home Economics	357	085	045	361	142	290	305	334	275	-012	074	017	046	111	033	065	-002	065	137	121	107
57	R-115	" Sports	292	080	093	404	223	445	308	356	352	035	034	090	165	111	020	104	057	139	142	173	160
58	R-131	Info II: Art	437	062	058	478	275	612	492	506	421	024	115	165	086	126	-005	153	039	141	158	192	183
59	R-134	" Engineering	271	140	128	347	184	357	210	329	320	024	073	086	083	112	024	074	020	114	127	152	104
60	R-135	" Architecture	260	068	073	280	161	365	278	328	318	-066	067	039	034	060	013	102	023	032	090	122	133
61	R-139	" Acct,Bus,Sales	387	061	053	387	233	492	399	441	365	-003	091	075	036	082	029	112	016	088	154	139	100
62	R-140	" Practical Knowledge	268	056	-006	366	214	409	315	362	276	104	143	059	137	121	107	134	030	130	175	084	082
63	R-141	" Clerical	227	076	041	306	191	369	221	336	167	118	118	116	068	134	126	096	-001	113	143	-042	-048
64	R-143	" Colors		043	072	326	189	370	318	384	337	014	099	064	042	080	-016	103	037	064	090	136	138
65	R-145	" Hunting	043		123	080	080	046	019	080	028	045	020	009	081	046	-010	002	-019	044	044	-019	-053
66	R-146	" Fishing	072	123		082	088	001	004	007	-001	-009	021	029	046	074	038	044	022	-007	048	-017	009
67	R-147	" Outdr Act (other)	326	080	082		216	423	312	442	367	049	092	089	157	130	040	114	026	103	152	137	158
68	R-149	" Games	189	080	088	216		255	256	226	224	025	018	109	055	057	-003	041	031	057	057	087	054
69	R-150	" Theater,Ballet	370	046	001	423	255		489	440	386	018	102	125	083	108	-013	129	054	105	116	124	140
70	R-151	" Foods	318	019	004	312	256	489		341	327	030	086	147	021	084	-027	090	055	068	100	068	093
71	R-230	English Total	384	080	007	442	226	440	341		568	011	133	047	085	094	069	118	042	125	189	118	087
72	R-312	Math II	337	028	-001	367	224	386	327	568		-025	060	032	118	079	-008	109	119	141	173	354	237
73	R-601	SAI: Sociability	014	045	-009	049	025	018	030	011	-025		462	212	495	380	318	372	289	433	359	-029	053
74	R-602	" Social Sensitivity	099	020	021	092	018	102	086	133	060	462		119	348	524	462	570	346	286	513	052	156
75	R-603	" Impulsiveness	064	009	029	089	109	125	147	047	032	212	119		239	074	-016	148	241	157	142	069	027
76	R-604	" Vigor	042	081	046	157	055	083	021	085	118	495	348	239		369	290	391	398	383	454	133	175
77	R-605	" Calmness	080	046	074	130	057	108	084	094	079	380	524	074	369		478	516	352	411	532	104	165
78	R-606	" Tidiness	-016	-010	038	040	-003	-013	-027	069	-008	318	462	-016	290	478		543	266	255	567	-008	030
79	R-607	" Culture	103	002	044	114	041	129	090	118	109	372	570	148	391	516	543		390	329	517	133	164
80	R-608	" Leadership	037	-019	022	026	031	054	055	042	119	289	346	241	398	352	266	390		385	499	171	159
81	R-609	" Self-Confidence	064	044	-007	103	057	105	068	125	141	433	286	157	383	411	255	329	385		426	131	145
82	R-610	" Mature Personality	090	044	048	152	057	116	100	189	173	359	513	142	454	532	567	517	499	426		177	171
83	F-701	Int Inv: Physical Science	136	-019	-017	137	087	124	068	118	354	-029	052	069	133	104	-008	133	171	131	177		682
84	F-702	" Biol.Sci & Med	138	-053	007	158	054	140	093	087	237	053	156	027	175	165	030	164	159	145	171	682	
85	F-703	" Public Service	088	-032	025	071	068	126	144	080	171	070	089	156	139	120	060	165	212	172	169	466	384
86	F-704	" Lit-Ling.	232	002	052	188	109	263	185	256	289	036	189	151	135	170	076	288	246	224	266	465	454
87	F-705	" Social Service	058	-029	-013	039	008	053	017	073	132	138	210	-060	148	152	121	203	193	111	216	324	450
88	F-706	" Artistic	267	-043	022	205	101	247	154	203	218	011	148	128	091	111	035	247	145	109	122	418	404
89	F-707	" Musical	153	-044	015	137	060	181	080	153	218	010	119	066	115	107	052	238	206	126	174	366	336
90	F-708	" Sports	059	012	028	173	043	082	035	114	186	128	061	089	289	087	005	074	143	158	120	432	404
91	F-709	" Outdr. Rec.	077	053	075	151	029	082	022	045	134	018	024	112	173	072	-060	066	080	060	061	398	362
92	F-710	" Bus-Mgmt.	038	-032	021	000	-015	032	060	001	056	143	146	116	145	145	124	161	232	190	221	376	272
93	F-711	" Sales	014	-046	023	-022	-021	-014	034	-051	-034	075	054	046	053	062	058	067	084	073	073	267	155
94	F-712	" Computation	-070	028	010	-111	004	-204	-151	-070	026	043	017	-071	046	031	127	-002	066	023	150	273	024
95	F-713	" Office Work	-183	033	-040	-219	-102	-283	-246	-168	-281	091	026	-088	-014	-042	117	-056	-070	-079	029	-173	-284
96	F-714	" Mech-Tech	015	-009	044	037	-007	-029	-051	-015	075	-031	-004	068	083	060	-044	022	032	022	083	645	439
97	F-715	" Skilled Trades	-023	-025	074	-017	-033	-100	-094	-072	-036	-063	-027	010	008	-005	-034	-031	-024	-046	-002	374	230
98	F-716	" Farming	079	079	103	166	052	070	-012	064	147	-099	-025	016	094	028	-088	022	021	-013	044	395	302
99	F-717	" Labor	-040	003	028	001	-023	-066	-076	-045	-008	-069	-057	009	005	-033	-066	-068	-049	-033	-009	256	121

TABLE 8-3 (continued)

Var	Code	Description	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100 [b]	MEAN	S.D.
1	SIB-017	Model Building	020	036	-013	056	041	106	196	078	047	025	-050	215	146	163	121	-519	1.2287	.6427
2	SIB-020	Electrical Repair	098	089	054	048	079	121	156	104	079	093	-043	210	149	118	089	-514	1.1655	.5513
3	SIB-021	Woodworking	090	089	031	104	070	141	177	084	050	077	007	240	257	203	182	-508	1.1675	.5480
4	SIB-022	Metal Working	034	040	015	086	049	051	100	068	054	-004	-053	118	135	104	077	-499	1.0915	.4171
5	SIB-023	Auto Repair	078	009	028	023	034	139	162	103	084	043	-014	210	136	145	120	-607	1.2153	.6901
6	SIB-042	Factory Work	-037	-040	036	-052	011	-031	-044	005	017	020	039	-027	-025	-026	-041	-199	1.0913	.5020
7	SIB-196	Hand Tools in the Home	-028	-038	-037	-014	-017	044	060	-018	-002	008	-025	042	043	094	047	-189	4.0137	1.8012
8	SIB-197	Elec.Tools in the Home	-047	-042	-052	002	004	021	084	006	039	-018	002	016	053	095	042	-386	2.7179	1.7325
9	SIB-003	Debate,Drama,Music Clubs	145	272	136	234	400	144	096	133	031	-049	-149	054	034	022	009	191	2.9652	1.9828
10	SIB-014	Drawing,Painting,etc.	091	212	046	413	196	128	160	099	046	-031	-115	091	061	156	007	101	2.5544	1.3077
11	SIB-015	Acting,Singing,Dancing	143	173	122	122	317	115	099	145	053	-038	-103	013	-005	-005	008	157	2.5566	1.4041
12	SIB-030	Concerts,Plays,etc.	222	351	196	307	317	157	162	180	087	000	-152	044	002	098	-027	162	3.7596	1.4030
13	SIB-056	Number of Books Read	125	304	056	179	163	069	106	084	014	-072	-175	024	-019	082	017	103	2.9582	1.4660
14	SIB-193	Musical Instruments,Hi-Fi,etc.	091	157	009	219	272	111	116	046	-005	-146	-226	-001	-029	071	-045	026	2.8090	1.3728
15	SIB-288	Art Awards	-005	041	-006	140	086	043	051	-017	010	-066	-099	037	030	037	003	-004	1.1450	.6312
16	SIB-289	Music Awards	014	072	034	055	246	070	077	003	-051	-019	-060	-017	-014	023	009	008	1.3383	.9724
17	SIB-025	Sewing,Knitting,etc.	008	063	169	042	034	059	070	119	119	217	157	134	213	165	143	772	3.6036	1.2296
18	SIB-026	Cooking	020	028	154	-000	-018	064	079	102	112	155	187	074	144	114	147	598	4.0673	1.0526
19	SIB-005	Farm Youth Groups	007	-025	-015	-007	021	031	058	018	023	130	106	060	099	062	065	-015	1.6957	1.4550
20	SIB-024	Caring for Animals	053	160	087	128	093	127	201	100	075	-006	-036	123	136	251	142	111	3.1180	1.4358
21	SIB-028	Gardening,etc.	092	138	177	113	132	179	209	118	125	137	097	220	258	317	204	154	2.5853	1.3025
22	SIB-040	Farm Work	-006	-021	001	-012	-009	046	110	036	030	090	048	104	161	189	146	-370	1.3382	.8984
23	SIB-013	Capt.of Athletic Team	011	001	-005	007	-045	081	-012	032	034	021	-013	-034	-025	-026	-013	029	4.9467	1.7091
24	SIB-027	Baseball,Football,Basketball	137	071	129	056	032	442	261	148	092	118	066	162	160	234	133	-374	2.8981	1.3184
25	SIB-031	Golf,Tennis,Swimming	142	121	067	137	076	284	183	139	073	-008	-087	037	-008	104	-028	-011	4.5519	1.4012
26	SIB-032	Track,Field,Hockey,etc.	129	120	060	110	096	297	205	147	106	011	-033	162	175	159	130	-520	2.0639	1.4900
27	SIB-033	Bicycling,Skiing,Canoeing,etc.	126	103	107	146	070	284	230	112	074	-052	-098	081	072	193	075	004	4.2214	1.5098
28	SIB-194	Sports Equipment	059	077	038	116	067	141	140	023	043	-105	-190	-021	-037	049	-010	-169	2.9542	1.3414
29	SIB-230	Athletic Teams	143	077	067	070	073	273	148	116	032	-007	-081	089	056	137	048	-254	2.9666	2.6781
30	SIB-290	Athletics Awards	044	-036	003	-032	-030	208	114	-020	-002	-033	-038	-019	-004	055	-002	-272	1.4385	1.0883
31	SIB-029	Hunting or Fishing	089	071	075	100	049	286	483	113	095	095	018	189	177	313	139	-502	2.1263	1.1934
32	SIB-045	Camp Counselor	065	064	076	010	044	089	085	058	023	-027	-081	025	018	051	013	-089	1.2962	.9001
33	SIB-291	Activities Awards	081	071	092	036	067	137	053	048	007	014	-057	030	010	059	-002	-124	1.5000	1.2171
34	SIB-011	President of a Class	100	126	146	042	120	056	-014	100	030	056	-022	-016	-041	-062	-053	-011	1.9408	1.4148
35	SIB-012	Officer of a Class	167	210	213	142	177	141	049	155	024	056	-106	017	-016	036	-046	126	3.1139	1.7538
36	SIB-231	Number of Clubs	220	295	251	233	237	187	099	187	077	012	-157	043	-008	071	-043	191	5.0378	2.7945
37	SIB-038	Odd Jobs	079	070	162	038	-005	099	065	133	101	085	066	041	095	097	135	235	3.3901	1.3954
38	SIB-039	Clerical Work	086	013	046	008	002	009	-017	091	050	092	119	-020	-046	-074	-012	198	1.8278	1.3210
39	SIB-043	Retail Store Work	075	027	080	-016	-012	064	078	114	179	101	079	081	077	048	036	-315	1.6103	1.2061
40	SIB-044	Sales Work	079	029	075	003	-034	054	070	161	195	129	099	052	048	000	025	000	1.9386	1.4732
41	SIB-102	Business Courses	-146	-157	-144	-134	-147	-124	-103	-027	-042	207	362	-090	-033	-076	-003	393	3.4426	1.7402
42	SIB-058	Science Fiction Books	010	075	012	034	043	012	050	066	-025	014	-001	064	012	021	004	-121	2.0714	1.6346
43	SIB-059	Science Books	086	142	087	098	131	088	091	070	-001	-015	-104	086	-003	033	-011	-145	1.8173	1.4259
44	SIB-098	Science Courses	131	197	138	130	157	122	139	009	-062	-094	-313	101	-037	093	-055	-220	3.0306	1.3128
45	R-102	Info I: Vocabulary I	152	353	090	314	218	161	140	038	-035	-132	-340	050	-058	148	-048	-202	12.6464	4.0344
46	R-103	" Literature	189	402	110	343	255	162	140	042	-036	-209	-367	033	-060	143	-041	-015	13.9333	4.6472
47	R-104	" Music	162	346	101	302	354	162	150	049	-016	-168	-311	016	-066	112	-040	073	7.1646	2.9928
48	R-105	" Social Studies	191	336	070	290	211	145	128	029	-015	-137	-331	044	-060	123	-031	-257	14.7148	4.8924
49	R-106	" Mathematics	198	331	153	242	270	199	111	081	-016	-011	-333	103	-020	130	-022	-296	7.9595	3.3946
50	R-107	" Physical Science	161	310	076	287	252	166	178	020	-032	-085	-358	131	-006	189	-013	-364	7.1662	4.0786
51	R-108	" Biological Science	084	253	036	289	185	092	144	-022	-047	-105	-272	073	-001	159	-018	-265	5.0489	2.2861
52	R-110	" Aero & Space	076	210	-022	205	204	104	155	023	001	-090	-192	132	039	196	006	-498	2.7570	1.7567
53	R-111	" Elec & Electron	114	188	044	205	157	098	151	030	006	-017	-203	118	-012	170	-001	-551	5.9970	2.7712
54	R-112	" Mechanical	013	138	-024	174	111	123	177	-023	-011	-039	-174	123	034	196	054	-638	8.2422	3.0961
55	R-113	" Farming	-002	129	-016	181	072	080	129	-052	-037	-083	-139	052	009	205	059	-227	7.4785	2.4560
56	R-114	" Home Economics	001	108	011	197	055	007	069	-036	025	013	-138	036	032	100	036	535	13.1781	3.3048
57	R-115	" Sports	153	234	069	190	166	260	140	076	017	-081	-230	063	006	138	041	-481	5.9629	2.5479
58	R-131	Info II: Art	159	347	066	348	201	112	113	050	-007	-183	-308	013	-077	113	-063	021	6.7536	2.5647
59	R-134	" Engineering	049	149	013	155	119	124	105	017	-010	-012	-133	065	-010	127	020	-330	2.7502	1.2668
60	R-135	" Architecture	106	230	037	249	180	103	084	011	-009	-099	-229	021	-029	093	-027	-071	2.7316	1.3025
61	R-139	" Acct,Bus,Sales	123	222	072	182	097	080	007	098	057	036	-124	016	-051	049	-009	-055	5.3308	2.0022
62	R-140	" Practical Knowledge	081	127	047	138	013	053	040	034	-003	-037	-107	-033	-083	041	-067	-031	3.2751	.7691
63	R-141	" Clerical	-053	041	005	054	-022	-009	-040	-013	-014	026	055	-042	-075	-032	-047	300	2.5316	.6968
64	R-143	" Colors	088	232	058	267	153	059	077	038	014	-070	-183	015	-023	079	-040	291	1.8414	.9631
65	R-145	" Hunting	-032	002	-029	-043	-044	012	053	-032	-046	028	033	-009	-025	079	003	-472	1.1477	.9783
66	R-146	" Fishing	025	052	-013	022	015	028	075	021	023	010	-040	044	074	103	028	-379	1.0186	.9077
67	R-147	" Outdr Act (other)	071	188	039	205	137	173	151	000	-022	-111	-219	037	-017	166	001	-240	4.4422	1.8614
68	R-149	" Games	068	109	008	101	060	043	029	-015	-021	004	-102	-007	-033	052	-023	-197	2.0793	1.0120
69	R-150	" Theater,Ballet	126	263	053	247	181	082	082	032	-014	-204	-283	-029	-100	070	-066	132	4.9544	1.8301
70	R-151	" Foods	144	185	017	156	080	035	022	060	034	-151	-246	-051	-094	-012	-076	147	1.7207	1.0656
71	R-230	English Total	080	256	073	203	153	114	045	001	-051	-070	-168	-015	-072	064	-045	209	88.5637	11.9739
72	R-312	Math II	171	289	132	218	218	186	134	056	-034	026	-281	075	-036	147	-008	-202	10.3114	4.9661
73	R-601	SAI: Sociability	070	036	138	011	010	128	018	143	075	043	091	-031	-063	-099	-069	078	7.2717	2.8999
74	R-602	" Social Sencitivity	089	189	210	148	119	061	024	146	054	017	026	-004	-027	-025	-057	238	5.6675	2.2272
75	R-603	" Impulsiveness	156	151	-060	128	066	089	112	116	046	-071	-088	068	010	016	009	-010	1.9840	1.7612
76	R-604	" Vigor	139	135	148	091	115	289	173	145	053	046	-014	083	008	094	005	-043	3.7325	2.1807
77	R-605	" Calmness	120	170	152	111	107	087	072	145	062	031	-042	060	-005	028	-033	055	4.9485	2.5135
78	R-606	" Tidiness	060	076	121	035	052	005	-060	124	058	127	117	-044	-034	-088	-066	178	6.7004	2.7319
79	R-607	" Culture	165	288	203	247	238	074	066	161	067	-002	-056	022	-031	022	-068	285	6.3030	2.1868
80	R-608	" Leadership	212	246	193	145	206	143	080	232	084	066	-070	032	-024	021	-049	-040	1.3823	1.4290
81	R-609	" Self-Confidence	172	224	111	109	126	158	060	190	073	023	-079	022	-046	-013	-033	-019	5.5494	2.6950
82	R-610	" Mature Personality	169	266	216	122	174	120	061	221	073	150	029	083	-002	044	-009	078	12.7688	5.1674
83	F-701	Int Inv: Physical Science	466	465	324	418	366	432	398	376	267	273	-173	645	374	395	256	-461	20.3873	12.6324
84	F-702	" Biol.Sci & Med	384	454	450	404	336	404	362	272	155	024	-284	439	250	302	121	-070	13.9511	8.3838
85	F-703	" Public Service		569	412	377	299	386	240	625	413	236	-044	366	266	199	173	-251	14.1992	12.4058
86	F-704	" Lit-Ling.	569		528	672	578	400	300	542	360	088	-116	331	261	306	178	297	35.1865	14.5324
87	F-705	" Social Service	412	528		316	292	327	156	499	310	245	124	243	253	217	208	489	30.0608	8.7350
88	F-706	" Artistic	377	672	316		567	403	377	356	275	-016	-162	342	325	411	182	234	15.5072	6.9678
89	F-707	" Musical	299	578	292	567		332	284	256	170	-022	-164	274	244	274	142	211	9.7595	5.6310
90	F-708	" Sports	386	400	327	403	332		564	365	247	109	-025	438	395	513	299	-315	16.2101	7.4859
91	F-709	" Outdr. Rec.	240	300	156	377	284	564		201	162	001	-117	431	402	632	310	-462	4.7148	3.3245
92	F-710	" Bus-Mgmt.	625	542	499	356	256	365	201		651	432	238	431	424	222	359	-232	24.2211	10.7504
93	F-711	" Sales	413	360	310	275	170	247	162	651		379	224	390	425	224	389	-165	8.9198	5.2561
94	F-712	" Computation	236	088	245	-016	-022	109	001	432	379		591	287	272	066	227	-025	17.0751	9.1246
95	F-713	" Office Work	-044	-116	124	-162	-164	-025	-117	238	224	591		055	173	-041	173	516	17.0346	7.0000
96	F-714	" Mech-Tech	366	331	243	342	274	438	431	431	390	287	055		737	507	562	-623	13.5705	9.1755
97	F-715	" Skilled Trades	266	261	253	325	244	395	402	424	425	272	173	737		568	741	-357	16.0608	9.5303
98	F-716	" Farming	199	306	217	411	274	513	632	222	224	066	-041	507	568		492	-288	10.0608	6.5047
99	F-717	" Labor	173	178	208	182	142	299	310	359	389	227	173	562	741	492		-346	7.6979	5.6036

[a] From Subsample 0. For a description, see Appendix A-1. The decimal point properly preceding each correlation coefficient has been omitted in this table.

[b] Point biserial correlations with sex for boys and girls combined. N=2,273.

and the correlation in the sample between that set of subscores and the sum score. In general, the longer the subtest, the more residual variance remained. However, some of the shorter subtests, such as the 10-item subtest on hunting and fishing, proved to have a large amount of variance independent of the sum score.

Inventory Scales

The 17 scales derived from the Project TALENT Interest Inventory have been described in Chapter 6. The nature of the items that make up these scales is shown on page 6-1. The titles of the scales themselves are given in Table 6-6. As noted in Chapter 6, the intercorrelations of these scales suggest that five clusters of interests are present: 1) Scientific, 2) Cultural, 3) Mechanical-Physical Labor, 4) Business-Sales-Office Work, 5) Public and Social Service.

Table 8-2 shows in column 100 the product-moment correlations between scores on each scale and sex. A positive correlation indicates that the mean of the girls was higher than the mean of the boys. The highest correlation of any of the scales with sex is -.62, which pertains to Variable 96, the Mechanical-Technical Scale. As would be expected, the boys show greater interest than girls in this field. The highest positive correlation (.52) pertains to the Office-Work Scale. These two examples illustrate how reasonable are the scores yielded by the Interest Inventory Scales.

The relative standings of the 83 activities in the Interest Inventory among twelfth-grade boys and girls are shown in Figures 8-1 and 8-2. In these figures, the activities have been loosely classified into five categories: recreational, scholastic, personal, occupational, and professional. The scale at the left-hand side of each figure is in terms of average choice value. As noted in Chapter 6, each activity was rated on a five-point scale by the students. Choice A ("I would like this very much.") was assigned a value of 1; choice B, a value of 2; choice C, a value of 3; choice D, a value of 4; and choice E, a value of 5. In Figures 8-1 and 8-2, the average choice value for twelfth-grade boys and girls, respectively, for each activity is indicated.

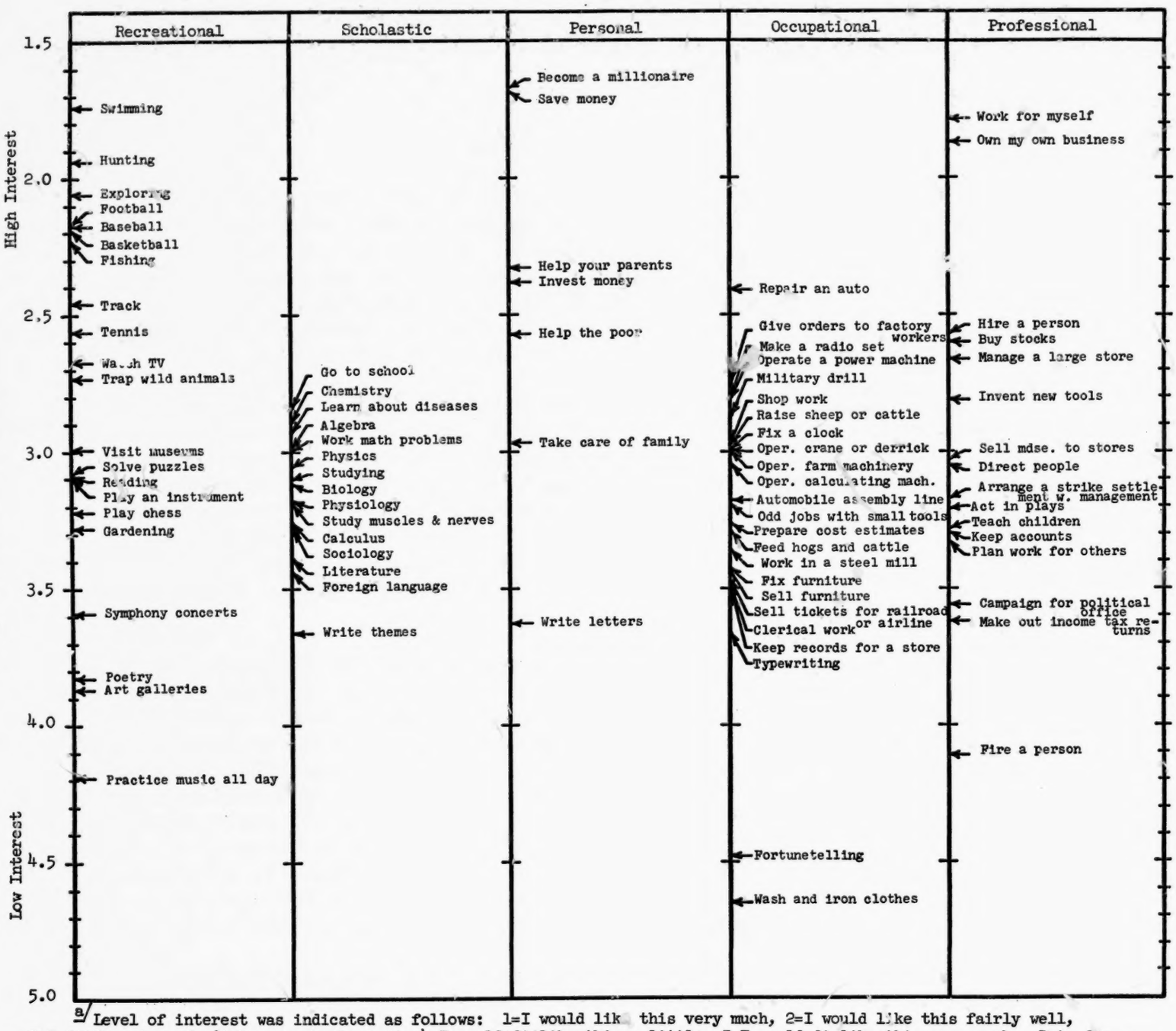
Favorite recreations among twelfth-grade boys are swimming and hunting; among twelfth-grade girls they are swimming and reading. The boys most dislike various cultural activities; the girls most dislike trapping wild animals and practicing music.

Among educational activities, boys most like chemistry and learning about diseases and least like writing themes and studying foreign languages. Girls, on the other hand, most like learning about diseases and studying foreign languages and least like sciences and mathematics, especially physics and calculus.

The personal activities that boys would like most are to become a millionaire and save money; the girls would like most to save money and

FIGURE 8-1

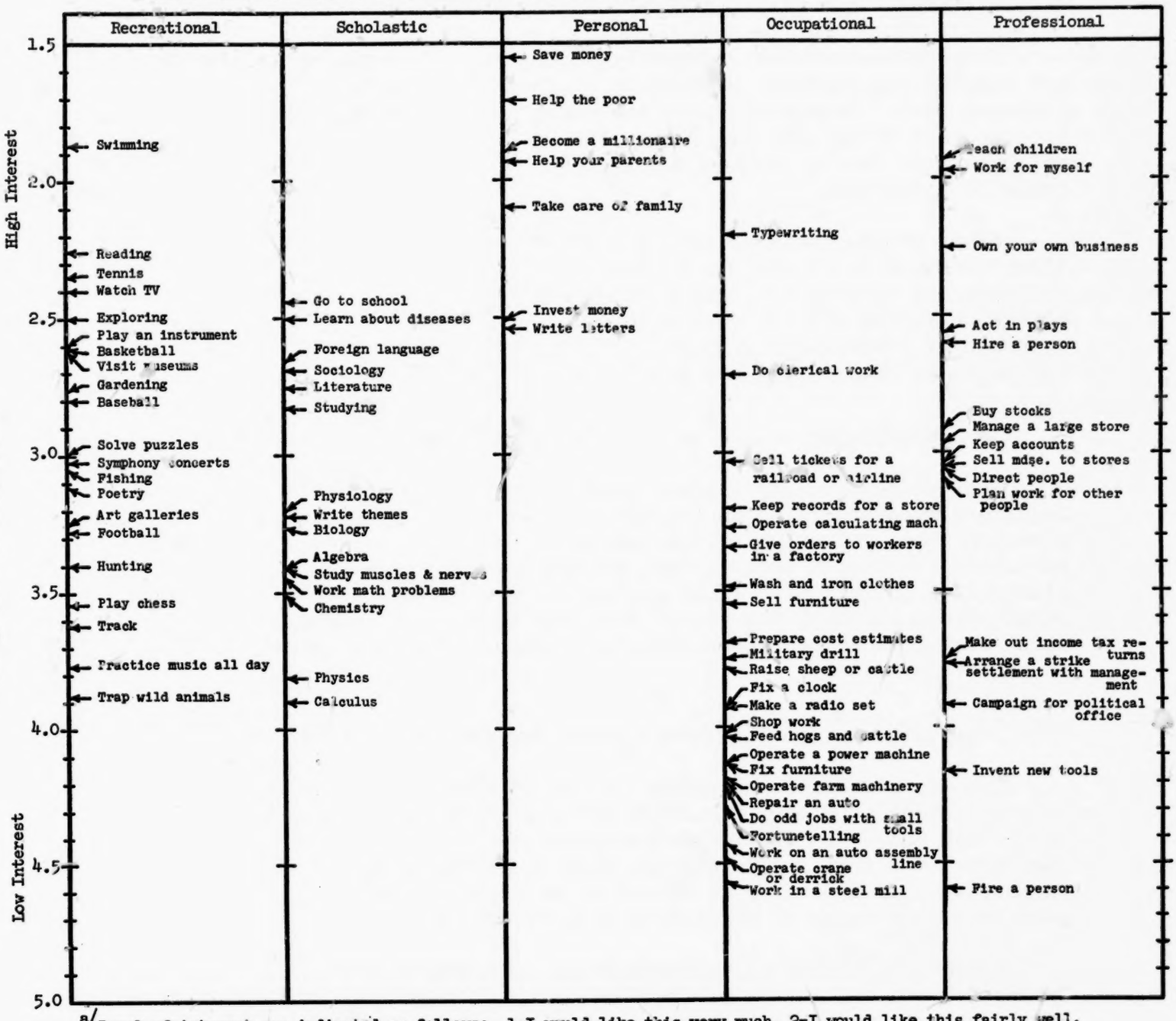
Relative Level of Interest of Grade 12 Boys in Various Activities on the Interest Inventory[a]



[a] Level of interest was indicated as follows: 1=I would like this very much, 2=I would like this fairly well, 3=Indifferent or don't know much about it, 4=I would dislike this a little, 5=I would dislike this very much. Data from Subsample B-04.0(.80)-25.

FIGURE 8-2

Relative Level of Interest of Grade 12 Girls in Various Activities on the Interest Inventory[a]



[a] Level of interest was indicated as follows: 1=I would like this very much, 2=I would like this fairly well, 3=Indifferent or don't know much about it, 4=I would dislike this a little, 5=I would dislike this very much. Data from Subsample B-04.0(.80)-25.

help the poor. The boys most dislike the idea of writing letters and taking care of members of the family (which they probably interpret as baby sitting). The girls express no personal dislikes.

Favored occupational activities among boys are repairing an auto and supervising factory workers; the girls most like typewriting and clerical work. Conversely, the boys most dislike typewriting, keeping records, and doing clerical work. The girls most dislike heavy manual or mechanical labor, such as working in a steel mill or operating a crane or a derrick.

Among professional activities, boys would like most to work for themselves and own their own businesses. Girls would most like teaching children and working for themselves. Boys would least like firing a person or making out income-tax returns. Girls would least like firing a person or inventing new tools. Third from the bottom for both boys and girls is campaigning for political office.

Personality Scales in the Student Activities Inventory

The ten personality scales yielded by the Student Activities Inventory were described in Chapter 7. The titles of these scales are given in Table 7-2. Tables 8-2 and 8-3, in which they are labeled as Variables 73-82 show their intercorrelations. There seem to be two clusters of scales: the first includes sociability, social sensitivity, calmness and culture; the second includes mature personality, leadership, culture, calmness, and tidiness. Impulsiveness is least related to the other scales.

Selected Activities Items in the Student Information Blank

The abbreviated descriptions of the 44 activities items selected from the Student Information Blank are listed as Variables 1-44 in Tables 8-2 and 8-3. The items themselves are given in Appendix K. They are items that yield response categories suitable for correlational purposes. They indicate the extent to which twelfth-grade students take part in a wide range of activities both in and out of school.

Inspection of the intercorrelations of these 44 variables in Tables 8-2 and 8-3 indicates that they are, on the whole, surprisingly low. In fact, many of them are slightly negative. Whether the fact that they tend to be low reflects lack of reliability or lack of true interrelationship of the variables measured cannot be determined from the data. However, the fact that a few coefficients are high between activities that seem logically to go together suggests that lack of reliability does not fully explain their small magnitudes.

For example, among boys, woodworking (Variable 3) has a correlation of .57 with metalworking (Variable 4). As a matter of fact, Variables 2, 3, 4, and 5 form a little cluster of activities related to manual work or "tinkering." There are very few well-defined clusters. Among

boys, Variables 24-26 form a cluster of sports activities. Variable 29 (being on athletic teams) naturally is linked to Variable 24 (playing baseball, football, and basketball). Among both boys and girls, Variable 9 (membership in debating, drama, and music clubs) is relatively closely related to Variable 11 (acting, singing or dancing for public performance).

By and large, the tentative conclusion must be that participation in these activities is rather selective among twelfth-grade pupils. Perhaps two opposing tendencies are operating: the first is the tendency for people to vary with respect to general level of activity; the second is the tendency for participation in one or two activities to take up time in such a way as to prevent participation in others.

Major Clusters of Variables

Eleven clusters of variables seem to be identifiable by inspection of the intercorrelation matrices of the 99 variables in Tables 8-2 and 8-3. These are listed in Table 8-4 with the variables that seem to form their cores. Brief comments on them follow.

Academic Achievement

As would be expected, the achievement tests in English and mathematics plus the information subscores that measure the more academic fields form a cluster that is by far the strongest. Scholastic aptitude is probably the underlying element in this cluster. The number of science courses taken in high school (Variable 44) is rather closely related to the variables in this cluster.

Mechanical and Technical Activities, Interests, and Experience

The activities in this cluster consist of several kinds of practical work with tools and apparatus. Correlated with these are information about electrical and mechanical operations and interests in mechanical-technical activities, the skilled trades, and manual labor.

Sports Activities and Interests

This cluster is somewhat different among boys than among girls. It involves participation in several popular sports, membership on athletic teams, and interest in sports. Among boys, knowledge of sports and the personality variable called Vigor are rather closely involved in the cluster.

Cultural Activities

Membership in debating, drama, and music clubs; performance as an actor, singer, or dancer; attendance at concerts, plays, etc.; and number of books read constitute activities included in this cluster. Interest in literature, social service, and artistic and musical events are also in the cluster.

TABLE 8-4

Cores of Clusters of Variables in Tables 8-2 and 8-3

Cluster	Type	Variables	
		Boys	Girls
1. Academic Achievement	Activities	44	44
	Information	45-53,57-59	45-52,57,58,61
	Achievement	71,72	71,72
2. Mechanical and Technical Activities, Interests, and Experience	Activities	2-5,7,8	1-5
	Information	(53,54,65)[a]	
	Interests	96,97,99	96,97,99
3. Sports Activities and Interests	Activities	24,29	24-27,29
	Information	57	
	Personality	76	
	Interests	90	90
4. Cultural Activities	Activities	9,11-13,36	9,11-13,36
	Personality	80	
	Interests	86-89	86,88,89
5. Household, Farming, and Gardening	Activities	18-22	17,18,21
	Interests	98	98
6. Outdoor Recreation and Activities	Activities	31	31
	Information	55,65,66	
	Interests	91,98	91
7. Leadership	Activities	11,23,34-36	34-36
	Personality	78,80,82	80
8. Scientific and Mathematical Interests	Activities	44	44
	Information	49,50	49,50
	Achievement	72	72
	Interests	83,84	83,84
9. Reading	Activities	13,42,43	13
	Information	(45-53)[a]	45-53
	Interests		86
10. Sociability	Personality	73,74,76,79	73,74,76,79
11. Business-Management and Office Work	Activities		41
	Interests	92-95	92,93,95

[a] Variables in parentheses are rather weakly represented in the clusters in which they are included.

Household, Farming, and Gardening

The activities and interests in this cluster differ somewhat between boys and girls but consist of domestic affairs, farming, and gardening. Caring for animals is associated with this group of activities.

Outdoor Recreation and Activities

The center of the outdoor-recreation cluster consists of participation in hunting and fishing, sports, and interests in these activities, plus farming.

Leadership

Leadership is denoted by experience as captain of an athletic team, as president or officer of a club, by number of club memberships, and by personality traits called Tidiness, Mature Personality, and Leadership.

Scientific and Mathematical Interests

This cluster includes number of science courses taken in high school, knowledge of scientific facts and principles, achievement in mathematics, and expressed interests in physical science, biological science, and medicine.

Reading

Number of books read during the preceding year is associated with amount of science fiction and nonfiction read. Information about several academic fields and, among girls, literary and linguistic interests are included in this cluster.

Sociability

Several of the personality scales group themselves into a cluster that may be regarded as sociability. Scales named Sociability, Social Sensitivity, Vigor, and Culture make up the core of this cluster.

Business-Management and Office Work

Several interest scales in Business-Management, Sales, Computation, and Office Work plus (for girls) number of business courses taken in high school make up this cluster.

Sex Differences in Mean Scores on the Variables in Tables 8-2 and 8-3

In the next-to-last column in each of Tables 8-2 and 8-3 the means of the variables are given. The differences between these means can be conveniently expressed as product-moment biserial correlation coefficients.

The latter appear in column 100 of each of Tables 8-2 and 8-3. A positive coefficient indicates that the mean of the girls is higher than that of the boys; coefficients that differ by more than about .06 from zero indicate that the differences between the means of the boys and of the girls are significant at the .05 level, or better.

Figure 8-3 shows the variables that display correlations of $\pm$.2 or more with sex. The means for boys and girls differ by highly significant amounts for these variables, which have been grouped in four categories; activities, information and achievement, personality traits, and interests. As would be expected, there is a great difference in the frequency with which boys and girls have engaged in sewing, knitting, crocheting, or embroidering. This variable (number 17 in Tables 8-2 and 8-3) is farther removed from the center line than any other in Figure 8-3.

It is noticeable that the number of variables for which there are large differences between the means of boys and girls favors the boys. Only two of the personality scales yield large differences (Culture and Social Sensitivity). In both cases, the girls' means are the higher.

For ten of the Project TALENT information subscores there were interest scales in closely parallel areas.[1] Figure 8-4 shows the patterns of correlations of the ten information subscores and of the ten interest scales with sex. The similarity of the patterns is at once apparent. This suggests the close association of information and interests that has been noted before. Only in the fields of music, art, and clerical work do the means of the girls on the information subscores and interest scales exceed those of the boys.

Needed Research

The close similarity of the patterns of interests and information suggests the need for further research in the measurement of interests by specialized information tests. For many years, questionnaires have been used for measuring interests. In general, it has been found that interest questionnaires (or inventories, as they are often called) provide serviceably valid scores whenever examinees answer them honestly and fully. However, if examinees have reason to dissemble when they respond to questionnaires, their scores must be interpreted with great caution. For this reason, the use of questionnaires in selection or in any situation where the examinees may find it to their advantage to answer dishonestly is usually unwise.

A functional approach to the measurement of interests through the

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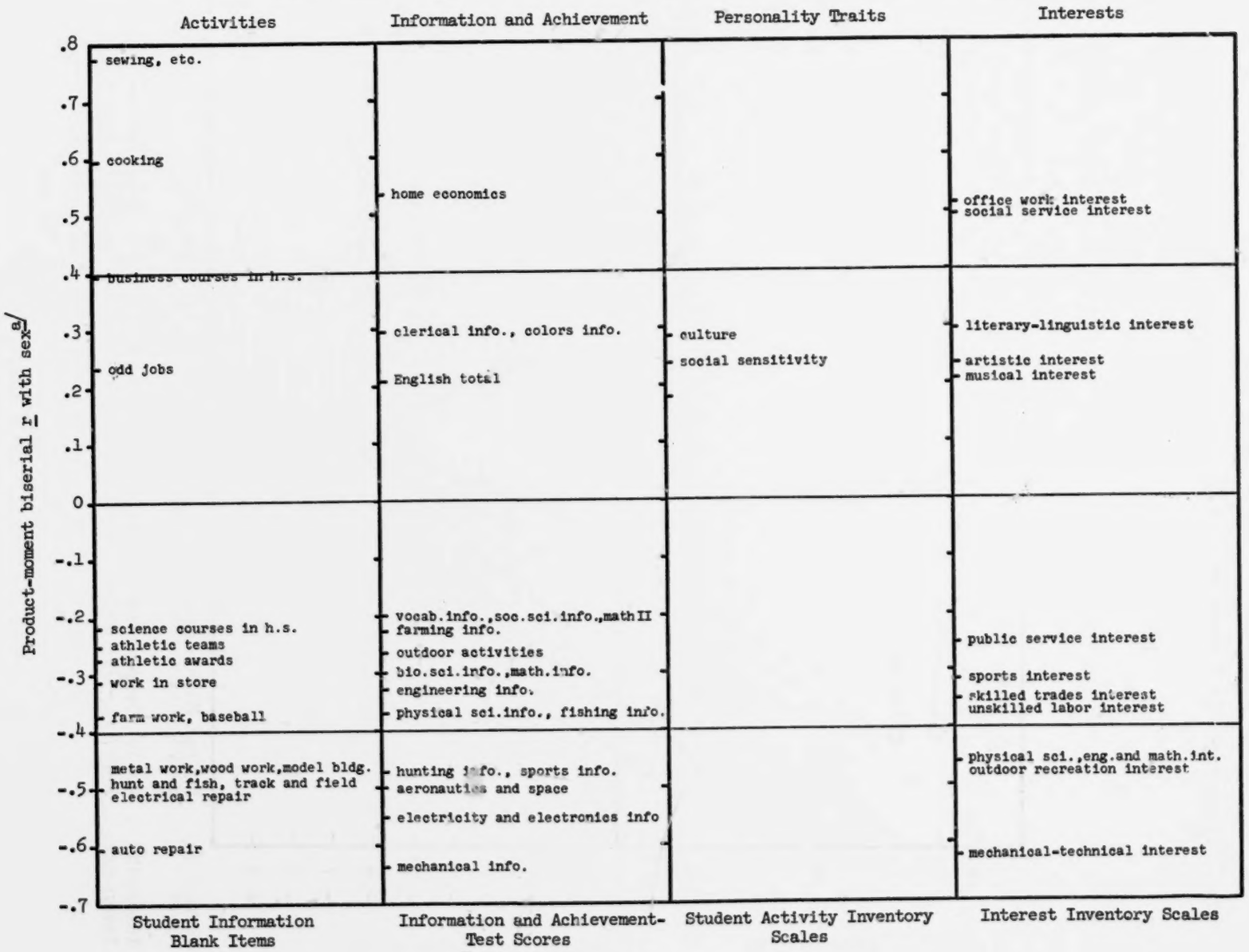
[1] This parallelism may be least marked in the case of the Mathematics Information Subscore (R-106) and the Computation Interests Scale (F*-712). The latter probably measures interests of statistical clerks more than interests of mathematicians.

FIGURE 8-3

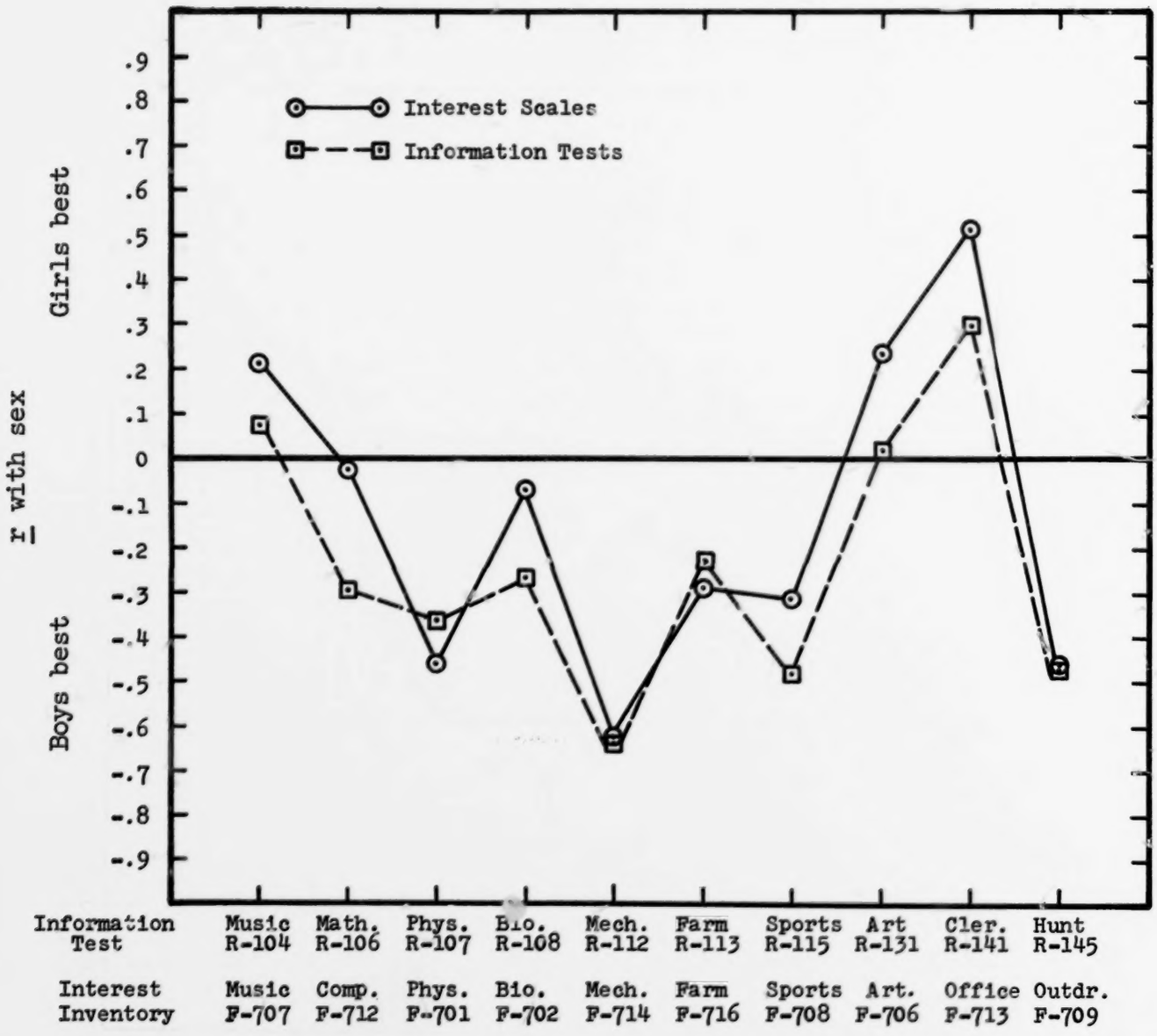
Correlations Greater Than ± .20 Between Sex and Student Information Blank Items, Information and Achievement Test Scores, Student Activity Inventory Scales, and Interest Inventory Scales for Grade-12 Students in the 4-Per-Cent Sample



a/ A positive correlation indicates that the mean score of girls was higher than that of boys.

FIGURE 8-4

Sex Differences in Interest and Information in Comparable Areas



measurement of information in a wide range of diverse fields was suggested many years ago by John C. Flanagan, and during the 1930's he developed separate norms for several subscores derived from the Cooperative Contemporary Affairs Test.[1] The basic rationale underlying this approach to the measurement of interests is that people tend to learn and to remember information in fields in which they are interested; conversely, they do not bother to learn much about fields in which they are not interested. Even if they are forced by circumstances to do so, they may tend to forget this information rapidly. Vocabulary tests developed by E. B. Greene[2] were based on a similar rationale.

Experience with specialized information tests during World War II led to refinements in methods of constructing them and confirmed the correctness of their underlying rationale. Such tests proved to be extremely useful for selecting aircrew members. In fact, the test in the battery used by the Air Force for selecting pilots that displayed the highest correlation with the pass-fail pilot training criterion variable was the General Information Test (CE505E).[3] Its most valid section measured aviation information.

The Project TALENT Information Test yields 37 independent information subscores and five dependent scores, including a Total Information Score (R-190). A list of all of these scores, as well as all the other variables in the battery, is shown in Appendix B-1. It is reasonable to postulate that scores on them are a function of memory and exposure and interest. The sort of memory ability that is involved appears to be memory for meaningful materials, such as memory for word meanings. Thus, it is more closely correlated with what is commonly called verbal aptitude or the verbal factor than with scores on tests that measure ability to memorize rote materials (such as series of digits). Experiments have shown repeatedly that, other things being equal, we tend to remember things we are interested in far better than things we are not interested in. Likewise, the more associations we are able to make with new information, the more likely we are to remember it.

Exposure to materials in a field and interest in that field are probably more highly correlated with each other than either is with memory for meaningful materials. This is because interest leads to exposure as an individual seeks contact with a field in which he is interested. Sometimes, unavoidable exposure arouses initial interest and develops it to the point where the individual seeks out new points of contact or material in a field.

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[1] Flanagan, J. C., "Measuring Interests," Psychol. Bull., 1953, 36, 529-30.

[2] Greene, E. B. Michigan Vocabulary Profile Test. Yonkers, N. Y.: World Book Co., 1937.

[3] Davis, F. B., ed. The AAF Qualifying Examination. Washington: U.S. Government Printing Office, 1947. Chapter 6.

Individuals who are high in verbal aptitude ordinarily read widely and pick up a good deal of information in such fields as literature, social studies, and cultural activities. However, in fields like electronics, mechanics, hunting, or fishing, they may pick up virtually no information in the course of wide general reading. Thus, to measure an individual's interest from his knowledge of information about a field, it would be desirable to use the difference between his specific-information score (expressed as a standard-score deviation from the mean of an appropriate reference group) and his memory-for-meaningful-materials score (expressed as a standard-score deviation from the mean of the same reference group). If this were done, the resulting set of difference scores for the individual would reflect a combination of his interests in an exposure to various specific fields. If we accept the hypothesis that these are highly correlated, we may use them as estimates of his relative interests in the fields measured. Research studies of the predictive validity of such difference scores for several criteria should be carried out in large samples.

Summary

Data have been presented pertaining to the interrelationships of 26 subscores from the Project TALENT Information Test, 17 scales in the Interest Inventory, 10 personality scales in the Student Activities Inventory, and 44 items selected from the 396 in the Student Information Blank.

Table 8-1 provides a list of the 26 Information-Test subscores as well as estimates of their reliability coefficients. In addition, the reliability coefficient of the variance in each subscore that is independent of total-score variance is also given. Several of these residual variances have surprisingly high reliability coefficients considering the fact that all of the subscores are short.

The interrelationships of the Information-Test subscores, the 17 interest scales, the 10 personality scales, and the 44 activity items are given in Table 8-2 for boys and in Table 8-3 for girls. Inspection of these intercorrelations suggests the presence of 10 or 11 clusters of variables, as follows:

Academic Achievement;
Mechanical and Technical Activities, Interests and Experience;
Sports Activities and Interests;
Cultural Activities;
Household, Farming, and Gardening;
Outdoor Recreation and Activities;
Leadership;
Scientific and Mathematical Interests;
Reading;
Sociability;
Business-Management and Office Work.

The mean scores of boys and of girls on the 99 variables in Tables 8-2 and 8-3 may be compared directly but the largest differences are shown in Figure 8-3 where they are expressed in terms of the product-moment biserial correlations of the variables with sex. Girls obtain markedly higher mean scores than boys in home economics, sewing, cooking, etc.; literary and linguistic achievement and interests, clerical skills and interests, and in cultural interests and tendencies. Boys obtain much higher mean scores than girls in mechanical knowledge, skills, and interests. They also are more knowledgeable about and interested in sports, outdoor activities, science, and mathematics.

The patterns of scores of boys and of girls on information and interest tests are very similar, as shown by Figure 8-4. These and other data suggest the need for further research on the use of information scores to measure interests.

Chapter 9

PROCEDURES OF THE FIRST FOLLOW-UP STUDY

Introduction

Plans for Project TALENT include provisions for keeping informed about students tested in 1960 by contacting them 1, 5, 10, and 20 years after their graduation from high school. The first of these follow-up studies was begun in June 1961, when a six-page questionnaire was mailed to approximately 88,000 students who were in grade 12 when they took the Project TALENT test battery in the spring of 1960. The complete schedule of follow-up studies is shown in Table 9-1.

TABLE 9-1

Project TALENT Follow-Up Schedule

Grade When Tested in 1960	Year for Follow-Up Studies			
	1-Year	5-Year	10-Year	20-Year
12	1961[a]	1965	1970	1980
11	1962[a]	1966	1971	1981
10	1963[a]	1967	1972	1982
9	1964	1968	1973	1983

[a] Questionnaires for this study have already been mailed.

Because of the great importance of the follow-up studies, every effort was made in 1960 to arouse the interest of the examinees in the project, to stress its nationwide scope, and to outline its importance over the long term. These points, among others, were included in a statement read to each group of examinees at their first testing session. In addition, the statement explained that each student's scores would be obtained and reported to his school. It was pointed out that these scores could be very helpful to teachers and counselors in discussing with each student his educational and vocational plans.

Special posters were printed and distributed to all schools where the tests were administered to emphasize the importance of Project TALENT. To engender a feeling of personal identification with the project among the examinees, a numbered identification card certifying membership in Project TALENT was given to each student. Both sides of this card are shown in Figure 9-1. There is considerable evidence that students took this card very seriously. One student who lost his wallet in the Radio City Music Hall in New York had it returned to him because it contained his Project TALENT membership card. Many students have conscientiously notified Project TALENT of their changes of address; others have provided announcements of engagements, marriages, etc.

One indication that the students' motivation for taking the tests was good was the fact that many schools reported their absentees as fewer than usual on the days scheduled for the testing.

The 1961 Mail Questionnaire

With about 88,000 boys and girls to be contacted in 1961, personal interviews with all of them could not be attempted. Consequently, a mail questionnaire that could be readily answered by respondents who had not entered college was designed. Additional questions for those who had entered college were included; it seemed likely that these young people, generally the more literate, would not object to spending an additional 10-15 minutes answering questions about their college work and plans.

Decisions regarding the length and content of the questionnaire were made in consultation with members of our advisory panels. It was widely agreed that the reading level should be kept as simple as possible, but there was division of opinion about the effect of length on the percentage of returns that could be expected. Some consultants believed that a high incidence of response would be obtained to a mail questionnaire only if it were no longer than could be fitted onto a postcard. Others recommended getting more complete data by using a longer questionnaire and accepting the inevitable lowering of the incidence of returns. This recommendation was ultimately accepted because it was recognized that a 100-per-cent return could not be obtained under any circumstances, and it was judged that the amount of distortion in the data would not be greatly affected by a reasonably small increase in the number of nonrespondents.

The exact questions to be included in the questionnaire and the wording of these were carefully considered. The value of each bit of data for criterion purposes and for census information was taken into account. Finally, 56 questions were formulated and fitted into six pages of an eight-page booklet. In addition to the questions, a space was provided for the respondent to answer the question, "How have your views and plans changed during the past year?" The cover page presented a letter explaining the importance of filling out and returning the

FIGURE 9-1

Facsimile of Numbered Project TALENT Membership Card
Given to Student During Testing Sessions
for Identification of Answer Sheets

SIDE A

TO THE STUDENT...

Your school has been selected as one of one thousand schools in the country to participate in Project TALENT—the first national census of aptitudes and abilities.

The purposes of this study include:

1. A scientifically planned inventory of all the talents of high school students.
2. The specific patterns of aptitudes, abilities, and interests which provide the best basis for various college courses and careers.
3. A better understanding of how young people choose their life work.
4. A better understanding of the educational experiences that prepare students for their life work.

Your school will receive a summary of the test results of all its students. This information can be useful to teachers, counselors, and other advisors in assisting you in making plans for your future.

IBM D19349-0

_____
(Name of School)

Date of Testing _____
(Month) (Year)

Please report ALL changes of address to:

PROJECT TALENT OFFICE
UNIVERSITY OF PITTSBURGH
PITTSBURGH 13, PENNSYLVANIA

SESSIONS 1 2 3 4

SIDE B

(LAST NAME) (FIRST NAME) (MIDDLE NAME)

PRINT your full name in the space above, last name first.

Your identification number is printed at the top of this card. Please record it on each of the answer sheets you use in the four testing sessions.

Do not detach the membership card at the right. Please don't fold, bend or mutilate this card. After you have completed all the tests you will be given the membership card to keep.

Your results on these tests will be transferred to magnetic tape for use in high speed electronic computers. To compare these results with your school, work, and other future experiences we plan to ask you to fill in a brief form, one, five, ten, and twenty years after you finish high school.

We also plan to send you brief reports on some of our findings as these are obtained. Please let us know when you change your address.

If you have any questions or wish to notify us of a change of address, please write us at The Project TALENT Office, University of Pittsburgh, Pittsburgh 13, Pennsylvania.

IBM D19348-0

NUMBER 261254

This membership card certifies that

_____
(NAME)

is a selected participant in good standing in

Project TALENT

A National Study of Aptitudes & Abilities

In recognition and appreciation of continuing contributions to the United States Office of Education supported research to improve and develop effective guidance procedures for American youth this numbered membership card is issued for his personal identification.

signed John C. Flanagan
DIRECTOR, PROJECT TALENT

signed John T. Dailey
PROGRAM DIRECTOR

questionnaire and was signed by the Director of Project TALENT. The back page provided space for the student's name and address on a mailing label along with his grade, sex, and testing number as well as a coded indication of the school where he took the Project TALENT battery. The mail questionnaire of 1961 is reproduced in Appendix H-1.

Mailing the 1961 Questionnaire

Mailing labels for the questionnaires were printed by a computer in the Computation and Data Processing Center at the University of Pittsburgh.

Two weeks after the first mailing of the questionnaire, a reminder card was sent out asking those who had not returned the questionnaire to do so. Four weeks after the first mailing, a copy of a newspaper, the Project TALENT News, was sent to each examinee of the approximately 440,000 who took the tests in 1960, including the 88,000 twelfth-grade pupils to whom follow-up questionnaires had been mailed. A copy of this newspaper is shown in Appendix H-3. About six weeks after the first mailing of the questionnaire, a second reminder card was sent out.

Twelve weeks after the first mailing of the questionnaire, a second copy was sent to every addressee who had not returned the first copy sent to him. The names of the addressees who filled out and returned their first copy of the questionnaire were removed from the mailing tape before the next set of mailing labels was printed from it. As each properly completed questionnaire was received, a card was punched to permit revising the mailing list. Cards were also punched to correct names or addresses as well as to eliminate students reported as deceased.

Seventeen weeks after the original mailing of the questionnaire a reminder card was sent. This was followed about four weeks later by a reminder letter.

Twenty-seven weeks after the original mailing a third copy of the questionnaire was sent out to all those who had not up to that point returned one properly filled out. About 38 weeks after the original mailing, a fourth and last copy of the questionnaire was mailed.

Returns and Costs of Mailing the 1961 Questionnaires

Table 9-2 summarizes the data pertaining to the number of copies of the questionnaire and reminder cards and letters sent out in each of the four mailings. The costs per addressee and per respondent are also given. These costs do not include personnel and machine charges for preparing the mailing tapes or correcting these tapes. Neither do they include the cost of preparing, printing, or mailing the Project TALENT News. They do, however, include the cost of printing and attaching the mailing labels. It is interesting to notice how the cost per respondent rises from $0.275 for the first copy of the questionnaire to $1.15 per

TABLE 9-2

Data Pertaining to the Mailing of the 1961 Follow-Up Questionnaire

Mailing	Median Mailing Date	Cost per Addressee[a]	Cost per Respondent[a]	Per Cent Returns
1st Mailing (88,160 mailed, 39,200 returned)				
1st questionnaire[b]	13 June	$ .121	$ .275	
1st postal card reminder[c]	26 June	.027	.060	
Project TALENT News[d]	10 July	---	---	
2nd postal card reminder[c]	20 July	.026	.059	
Total expense--1st Mailing		$ .174	$ .394	44.5
2nd Mailing (50,860 mailed, 14,300 returned)				
2nd questionnaire[e]	1 Sept.	$ .172	$ .614	
3rd postal card reminder[c]	6 Oct.	.028	.098	
letter reminder[c]	30 Oct.	.030	.107	
Total expense--2nd Mailing		$ .230	$ .819	28.1
3rd Mailing (36,970 mailed, 5,200 returned)				
3rd questionnaire[e]	12 Dec.	$ .153	$1.089	14.1
4th Mailing (29,200 mailed,[f] 2,800 returned)				
4th questionnaire[g]	21 Feb.	$ .110	$1.148[h]	9.6
All Mailings		$ .175	$ .586	69.8

[a] Costs include estimated staff time for hand-mailing several thousand questionnaires in each mailing that had garbled addresses on mailing labels.

[b] Sent as 3rd-class mail; live stamp affixed for returns.

[c] Third-class mail.

[d] While the Project TALENT News served as a reminder, its cost is not included since it was sent to all Project TALENT students.

[e] Sent as 1st-class mail; live stamp affixed for returns.

[f] About 3,000 names were dropped from this mailing because of bad addresses.

[g] Sent as 3rd-class mail; business-reply return.

[h] This cost would have been $1.85 per respondent had the questionnaire been sent 1st-class mail with a live stamp for return.

copy for the fourth copy of the questionnaire. The curve of rising cost per respondent is decelerating because of the different treatments used. It is difficult to predict after how many mailings this cost would become prohibitive. If the fourth mailing had been done using first class mail and a live stamp for return, similar to the third mailing, the cost per respondent would have been increased by approximately $0.70 each to about $1.85.

Figure 9-2 shows the cumulated percentages of the 88,160 boys and girls to whom the first copy of the 1961 follow-up questionnaire was mailed who returned a completed questionnaire. After a steep rise for the first six weeks, the weekly increase in the cumulative percentage became small. A steep rise again occurred after the mailing of the second, third, and fourth copies; but each time the rise was less steep and less prolonged.

Ultimately, 61,500 completed questionnaires were received. Of these, 180 were found to be duplicates or unusable. Thus, 61,320 usable completed questionnaires were received. This is 69.6 per cent of the group to which copies of the questionnaires were sent.

Some indication of the variability in response rates to questionnaires is given in Figure 9-3. In the first mailing the entire group of addressees was divided into ten subsamples. Figure 9-3 shows the percentages of returns in the subsamples having the highest and the lowest percentages as well as in the entire group. The data suggest that the variability is rather small, the range being about 5 percentage points at the end of 30 days.

Errors in Marking the Answer Sheets With Names and Addresses

In May 1962 a study was carried out of errors made by twelfth-grade pupils in coding their names and addresses on the record forms from which mailing tapes were produced. On 6,668 of these forms, 2,246 errors were found. These errors ranged from a simple misplacement of a letter to some that led to printing of an unusable mailing label. Each error was evaluated to determine which of these major sources of error was responsible and what the probable outcome of mailing a label with this error would have been. Table 9-3 shows the results of this evaluation. Apparently, about 5 per cent of the labels were so seriously in error that it was judged they would not make delivery of the questionnaire likely.

The findings indicate that coded information on record forms should be carefully checked before it is used. The experience of Project TALENT leads to the conclusion that such checking is indispensable in large studies.

FIGURE 9-2

Cumulative Per Cent of Returns in Group to Which 1960 Follow-up Questionnaires Were First Mailed

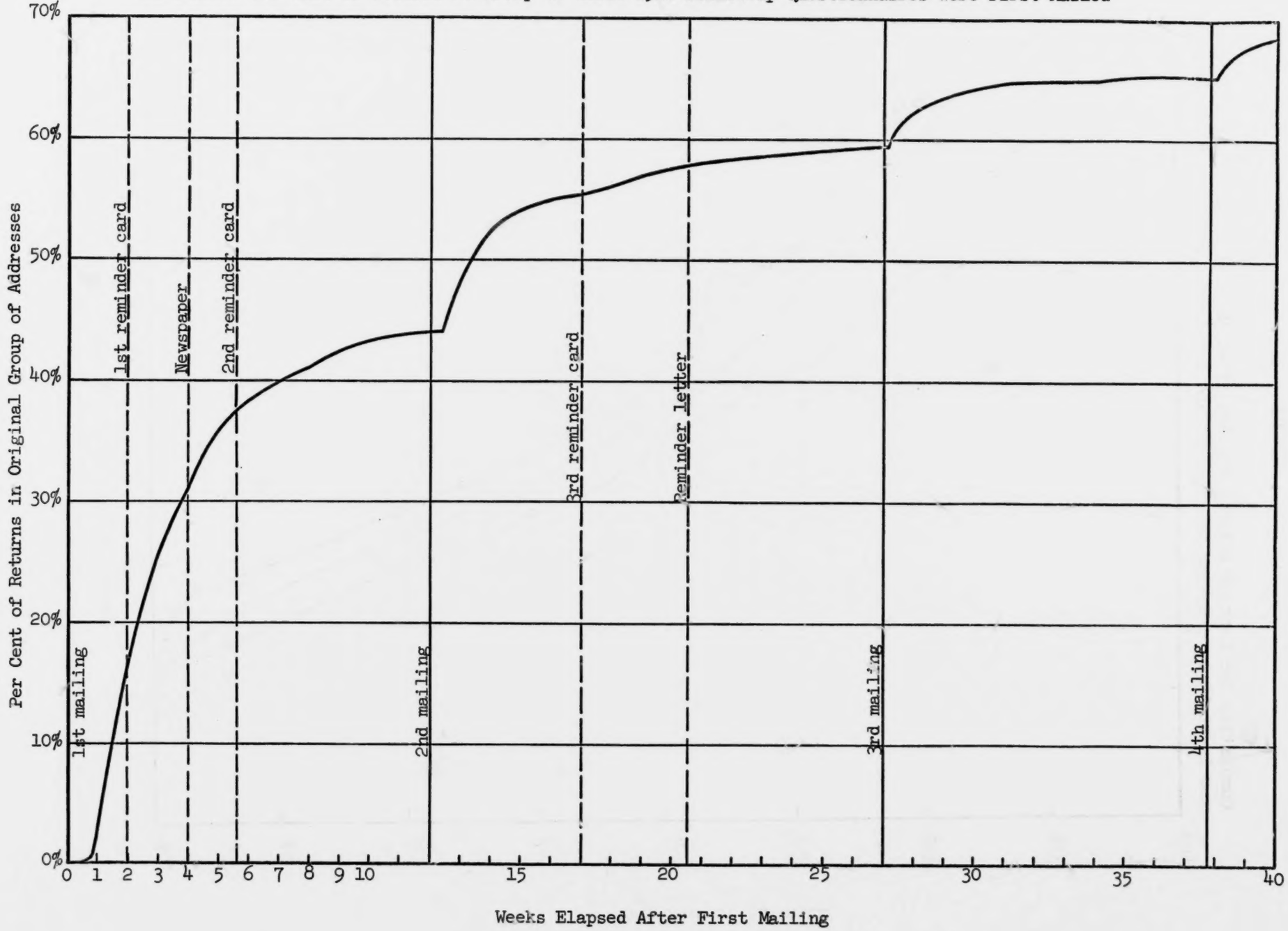

FIGURE 9-3

Cumulative Per Cent of Returns for the First Mailing in the Entire Group, and in the Groups Having the Highest and the Lowest Percentages of Returns

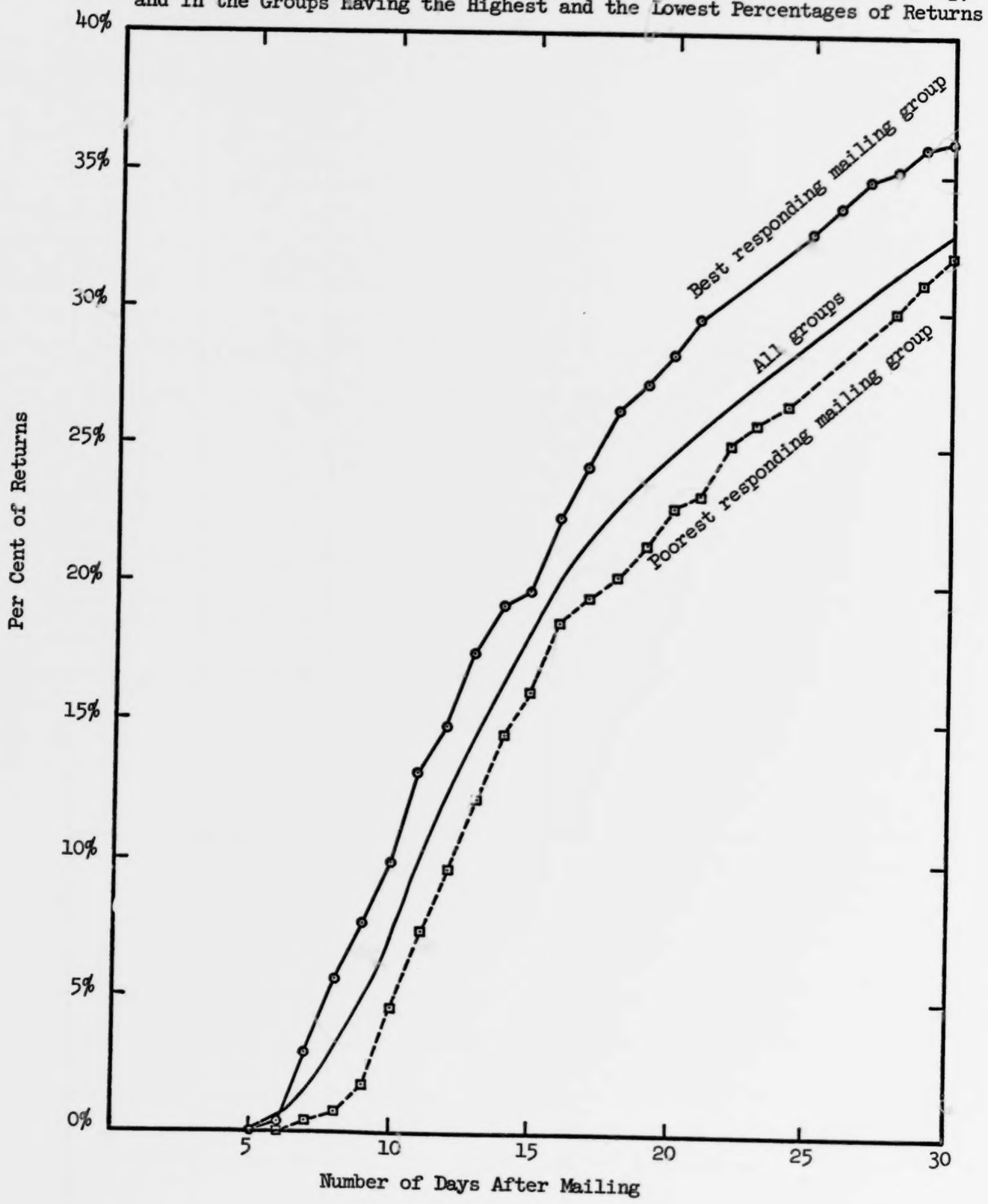

TABLE 9-3

Percentages of 6,688 Mailing Labels Characterized by Errors Arising From Three Sources and Falling in Two Categories of Seriousness

Error Source	Label Not Deliverable	Label Probably Deliverable	All Errors
Marking of answer sheet by student	2.7	14.9	17.6
Punching cards from document reader	0.8	4.2	5.0
Computer processing and printing	1.7	9.4	11.1
Total	5.2	28.5	33.7

An Intensive Follow-Up Study of Nonrespondents to the 1961 Mail Questionnaire

It is a well-known fact that data based on responses to mail questionnaires are often biased because the respondents do not constitute a representative sample of the group to which the questionnaires were sent. There are two general approaches to removing this bias. The first consists of drawing a random sample of nonrespondents, locating these individuals, and getting the answers to the items on the questionnaire. The responses tabulated for these individuals are then multiplied by the ratio of all nonrespondents to the number from whom answers were obtained after they were located. The resulting data may then be directly combined with those obtained by mail. If every individual drawn at random were located or if those not located (because of death, disappearance, etc.) constituted a representative subsample, these combined data would constitute unbiased estimates of responses to the questionnaire items in the population represented by the individuals to whom the questionnaire was first mailed. The accuracy of these estimates depends on the number of respondents to the mail questionnaire and to the special follow-up questionnaire as well as on the ratios of these numbers to the number of grade-12 pupils tested and the number of respondents to the mail questionnaire, respectively.

The second general approach to removing the bias from distributions of responses to mail questionnaires when some of those to whom they were sent did not respond is to identify a variable or composite of several variables that can be used to estimate the distribution of responses to a given question in the entire group to which questionnaires were mailed.

The first method was included in the basic plans for Project TALENT and has been used in the first follow-up study. Techniques for using the second method have also been developed and tried out. Plans to evaluate these techniques have been formulated.

After the list of addressees who had not returned a questionnaire as a result of the first four mailings had been prepared, the names of those who had been public-school students were grouped into categories representing somewhat homogeneous groups of schools, as defined in Table 4-5 in Studies of the American High School.[1] Names of addressees who had been students in private schools and in parochial schools were placed in separate categories. The school lists of names were then used to count off subgroups of 20 pupils each. One name was selected at random from each subgroup. Thus, from the entire group of 26,840 nonrespondents, 1,341 were obtained.

About 700 of these had addresses within 100 miles of one of the Regional Coordinators of Project TALENT. Therefore, the coordinators were assigned these names with instructions to locate the individuals and obtain answers to selected questions adapted for use from the mail questionnaire. These questions are shown in Appendix H-2. Coordinators were able to get the information by telephone or by personal visits for most of the individuals. In some cases the coordinators obtained new addresses and the individuals were contacted by other coordinators or by certified mail. The cost of gathering this information was about $10 per case.

About 642 cases were assigned to the principals of schools they had attended. Usable information, though not always complete, was received for approximately 83 per cent of the cases. The cost of this information was only about 37 cents per case.

Next, the names of 141 individuals for whom no information was obtainable from coordinators or school principals were turned over to the Retail Credit Corporation for investigation. A maximum charge of $20 per case was specified. Given this financial restriction, complete or considerable data were obtained on 116 cases and some data on 18 cases at a cost of $2,291. This left seven cases unaccounted for. It is probable that if additional funds had been available, at least some information could have been obtained for the last seven cases. However, the loss of seven out of 1,341 cases was regarded as of negligible effect and the follow-up investigation was ended at that point. The results will be reported in Chapter 10.

Discussion of the Procedures

It is apparent that large-scale follow-up studies are expensive and time-consuming. In general, the cost of getting responses to mail questionnaires increases greatly per response after one or two mailings. Reminder cards and letters seemed to have little discernible effect in

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[1] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Orr, D. B.; and Goldberg, I. Studies of the American High School. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 226. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1962. Table 4-5, pp.4-13.

Project TALENT's first follow-up study and not nearly as much as an additional questionnaire. Spurts in the rate at which returns came in occurred immediately after the mailing of additional copies of the questionnaire itself.

Although only 5 per cent of the mailing labels obtained by machine processing from such data proved to be seriously enough in error to prevent delivery of the questionnaires, it seems wise to recommend strongly that a good deal of supervision and help (and plenty of time) be available to students while they are coding such data onto special answer sheets and that these be inspected by their teachers to correct obvious errors before the answer sheets are sent to the school office for assembly and shipment.

The data suggest that funds and time devoted to arousing student identification with the project and in motivating them to respond would prove to be well spent.

Summary

Plans for Project TALENT included provisions for follow-up studies 1, 5, 10, and 20 years after the testing program conducted in 1960 in grades 9, 10, 11, and 12. This means that follow-up questionnaires were scheduled for mailing as shown in Table 9-1.

To motivate students to respond to mail questionnaires scheduled for use in follow-up studies, considerable time and thought were given to informing them about the project and its purposes and encouraging them to identify with it.

The first follow-up questionnaire was mailed to 88,160 young men and women who had taken the Project TALENT tests as twelfth graders in the spring of 1960. After four copies of this questionnaire and several reminders had been sent to those for whom replies had not been received, 61,320 usable questionnaires were returned. A 5-per-cent random sample, stratified by school, of the nonrespondents was drawn and intensive efforts were made to locate these individuals and to obtain responses to selected questions on the mail questionnaire. Some usable information was obtained from all but seven of them.

Direct costs of obtaining responses to the mail questionnaire were about 59 cents per respondent; for the special questionnaire for nonrespondents to the mail questionnaire, direct costs amounted to about $7.44 per respondent.

There is some evidence that funds spent in an effort to obtain the maximum number of replies to mail questionnaires can be spent to better advantage for sending out additional copies of the questionnaire to nonrespondents rather than for sending reminder cards and letters to them.

Chapter 10

RESULTS OF THE TWELFTH-GRADE FOLLOW-UP STUDY

Introduction

The responses of approximately 61,500 respondents to the mail questionnaire sent to young men and women about 12-18 months after completion of their twelfth-grade year are shown in Table 10-1. (The questionnaire itself is reproduced in Appendix H.) As noted in footnote e/ to this table, the data are presented as weighted frequencies. These weighted frequencies have no absolute meaning, but they do correct the unweighted data for over- and under-representation of certain types of schools in the Project TALENT sample. Thus, distortions caused by the oversampling of large schools and by the inability of a small percentage of schools to participate in Project TALENT after being asked to do so were either greatly reduced or eliminated. Consequently, weighted frequencies may be regarded as directly comparable with one another.

As noted in Chapter 9, a random sample of 1,341 cases was drawn from the group of about 26,800 young men and women who did not respond to the mail questionnaire. The responses of the 1,341 cases to the special questionnaire are shown in Table 10-2. (The special questionnaire, or interview schedule, is reproduced in Appendix H.) These data are also reported in weighted frequencies and should, therefore, be directly comparable with the frequencies given in Table 10-1.

Table 10-3 shows a combination of the data in Tables 10-1 and 10-2 for questions that were the same on the mail questionnaire and the special follow-up questionnaire.

The Project TALENT Sample

Since the data in Table 10-3 represent our best estimates of the responses in the entire sample of cases who were in grade 12 when they took the Project TALENT test battery in the spring of 1960, they constitute the most fundamental data we have and will be discussed first.

The responses to item C-1 in Table 10-3 show that, of the high-school seniors tested in March and April of 1960, about 98 per cent graduated from high school. For all practical purposes, this is tantamount to saying that about 2 per cent of pupils who take the work of

TABLE 10-1

Responses to Items in the Original Follow-Up Questionnaire[a] Mailed to Pupils Who Were in Grade 12 in the Spring of 1960

Item[b]	Group[c]	Percentages Based on Weighted Frequencies of Those Responding[d]			Weighted Frequencies in Hundreds[e]		
		Boys	Girls	All	Boys	Girls	All
Q-1. Did you graduate from high school?							
Yes	N				1515	2447	
	C				2222	1916	
	T	99.0	99.3	99.1	3737	4363	8100
No	N				35	27	
	C				4	4	
	T	1.0	0.7	0.9	39	31	70
Total		100.0	100.0	100.0			
No response	N				22	12	
	C				9	9	
	T				31	21	52
Q-2. Have you attended college?							
Yes, full-time	N				37	115	
	C				1885	1633	
	T	51.4	40.5	45.5	1922	1748	3670

[a] For the exact wording of this questionnaire, see Appendix H-1.

[b] The numbering of the questions in this table is the same as that of the original twelfth-grade follow-up questionnaire. Since data for some of these items are not given in the table, the sequence of question numbers is not consecutive.

[c] N = Noncollege respondents
C = College respondents
T = Total of noncollege respondents and college respondents

[d] The categories of respondents included in the bases for computing percentages appear immediately above the word "Total." The sums of percentages may differ slightly from 100 because of rounding errors.

[e] The frequencies have been weighted to correct for over- and under-representation of certain types of schools in the Project TALENT samples. The absolute values of the weighted frequencies have no meaning. The total weighted frequency for boys, girls, or boys and girls combined can be obtained for each item by adding in any given column the frequencies pertaining to that item.

The unweighted frequencies on which the data are based are 18,117 boys and 21,408 girls.

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-2. (continued)							
Yes, part-time	N				14	24	
	C				106	97	
	T	3.2	2.8	3.0	120	121	241
Yes, but dropped temporarily	N				15	14	
	C				177	94	
	T	5.1	2.5	3.7	192	108	300
Yes, but dropped for good	N				9	25	
	C				45	86	
	T	1.4	2.6	2.0	54	111	165
No, but plan to in 1-2 years	N				300	184	
	C				7	4	
	T	8.2	4.4	6.1	307	188	495
No, but plan to later	N				411	261	
	C				2	1	
	T	11.0	6.1	8.4	413	262	675
No, don't plan to	N				733	1779	
	C				1	3	
	T	19.6	41.2	31.2	734	1782	2516
Total		99.9	100.1	99.9			
No response	N				52	85	
	C				9	12	
	T				61	97	158
Q-3. Since leaving high school, have you attended a school other than college?							
Yes, full-time	N				276	477	
	C				70	83	
	T	9.8	13.4	11.7	346	560	906
Yes, part-time	N				136	159	
	C				34	38	
	T	4.8	4.7	4.8	170	197	367
No, don't plan to	N				659	1396	
	C				1770	1517	
	T	68.7	69.6	69.2	2429	2913	5342

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-3. (continued)							
No, but plan to later	N				421	371	
	C				169	147	
	T	16.7	12.4	14.3	590	518	1108
Total		100.0	100.1	100.0			
No response	N				80	83	
	C				191	143	
	T				271	226	497
Q-4. I plan to get							
no further schooling.	N				455	1328	
	C				51	124	
	T	13.8	34.6	24.9	506	1452	1958
a college degree.	N				377	155	
	C				1950	1462	
	T	63.6	38.5	50.2	2327	1617	3944
a junior-college diploma.	N				80	55	
	C				84	99	
	T	4.5	3.7	4.0	164	154	318
a registered nurse certificate.	N				2	147	
	C				1	60	
	T	0.1	4.9	2.7	3	207	210
a practical nurse certificate.	N				1	65	
	C				0	6	
	T	0.0	1.7	0.9	1	71	72
a business school diploma.	N				103	390	
	C				24	86	
	T	3.5	11.3	7.7	127	476	603
an apprentice certificate.	N				462	190	
	C				71	31	
	T	14.6	5.3	9.6	533	221	754
Total		100.1	100.0	100.0			
No response	N				92	157	
	C				52	61	
	T				144	218	362

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-5. Since leaving high school, I have attended							
a 4-year college or university.	N				2	2	
	C				1752	1519	
	T	46.1	34.4	39.8	1754	1521	3275
a 2-year college.	N				4	5	
	C				331	291	
	T	8.8	6.7	7.7	335	296	631
Subtotal of 4-year or 2-year college	N				6	7	13
	C				2083	1810	3893
	T	54.9	41.1	47.5	2089	1817	3906
a technical institute.	N				79	32	
	C				52	15	
	T	3.4	1.1	2.2	131	47	178
a school of nursing (3 years).	N				1	133	
	C				0	25	
	T	0.0	3.6	1.9	1	158	159
a school of practical nursing.	N				0	28	
	C				0	1	
	T	0.0	0.7	0.4	0	29	29
a business school.	N				64	327	
	C				12	17	
	T	2.0	7.8	5.1	76	344	420
a trade school.	N				97	95	
	C				6	1	
	T	2.7	2.2	2.4	103	96	199
an armed-forces enlisted school.	N				282	9	
	C				10	1	
	T	7.8	0.2	3.7	292	10	302
some other school.	N				84	147	
	C				24	13	
	T	2.8	3.6	3.3	108	160	268
No school or no response	N				959	1709	
	C				47	46	
	T	26.4	39.7	33.6	1006	1755	2761
Total		100.0	100.0	100.0	3806	4416	8222

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-6. Did you want to go to college?							
No, I wanted to earn money.	N				253	600	
	C				1	1	
	T	17.8	27.1	23.5	254	601	855
No, I wanted to get married.	N				31	321	
	C				0	1	
	T	2.2	14.5	9.7	31	322	353
No, I wanted military service	N				159	8	
	C				1	0	
	T	11.2	0.4	4.6	160	8	168
No, I wanted other school.	N				154	342	
	C				1	3	
	T	10.8	15.6	13.7	155	345	500
No, for some other reason.	N				110	142	
	C				1	1	
	T	7.8	6.5	7.0	111	143	254
Yes, but couldn't afford it.	N				323	393	
	C				5	3	
	T	22.9	17.8	19.9	328	396	724
Yes, but family emergency prevented.	N				19	30	
	C				0	1	
	T	1.3	1.4	1.4	19	31	50
Yes, but I was married.	N				24	77	
	C				1	0	
	T	1.7	3.5	2.8	25	77	102
Yes, but I hadn't taken right courses.	N				66	71	
	C				1	1	
	T	4.7	3.3	3.8	67	72	139
Yes, but my grades were too low.	N				92	63	
	C				1	0	
	T	6.5	2.8	4.3	93	63	156

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-6. (continued)							
Yes, but I wasn't accepted.	N				26	19	
	C				0	0	
	T	1.8	0.9	1.2	26	19	45
Yes, but some other reason prevented.	N				158	135	
	C				3	2	
	T	11.3	6.2	8.2	161	137	298
Total		100.0	100.0	100.1			
No response	N				156	282	
	C				2219	1916	
	T				2375	2198	4573
WORK EXPERIENCE							
Q-8. Number of full-time jobs since leaving high school							
None	N				246	498	
	C				520	739	
	T	20.6	28.8	25.0	766	1237	2003
One	N				734	1332	
	C				1014	804	
	T	47.1	49.7	48.5	1748	2136	3884
Two	N				371	486	
	C				525	280	
	T	24.1	17.8	20.8	896	766	1662
Three or more	N				169	116	
	C				132	41	
	T	8.1	3.7	5.7	301	157	458
Total		99.9	100.0	100.0			
No response	N				52	55	
	C				43	65	
	T				95	120	215

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-9. Time to find first full-time job:							
Found it before leaving high school	N				555	666	
	C				842	525	
	T	47.9	39.3	43.5	1397	1191	2588
Less than a week	N				128	214	
	C				234	163	
	T	12.4	12.4	12.4	362	377	739
1-2 weeks	N				116	182	
	C				196	130	
	T	10.7	10.3	10.5	312	312	624
2-4 weeks	N				130	189	
	C				135	106	
	T	9.1	9.7	9.4	265	295	560
1-2 months	N				130	213	
	C				71	56	
	T	6.9	8.9	7.9	201	269	470
2-4 months	N				109	201	
	C				38	28	
	T	5.0	7.6	6.3	147	229	376
4-6 months	N				40	104	
	C				17	15	
	T	2.0	3.9	3.0	57	119	176
More than 6 months	N				61	154	
	C				113	87	
	T	6.0	7.9	7.0	174	241	415
Total		100.0	100.0	100.0			
No response or no full-time job	N				302	565	
	C				587	818	
	T				889	1383	2272

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-10. When first full-time job started:							
Before May 1960	N				217	159	
	C				248	114	
	T	16.0	9.0	12.4	465	273	738
May-June 1960	N				498	652	
	C				853	510	
	T	46.3	38.4	42.3	1351	1162	2513
July-August 1960	N				260	478	
	C				212	175	
	T	16.2	21.6	18.9	472	653	1125
September-October 1960	N				123	257	
	C				33	25	
	T	5.4	9.3	7.4	156	282	438
November-December 1960	N				32	92	
	C				18	21	
	T	1.7	3.7	2.7	50	113	163
January-February 1961	N				49	102	
	C				28	22	
	T	2.6	4.1	3.4	77	124	201
March-April 1961	N				40	86	
	C				31	22	
	T	2.4	3.6	3.0	71	108	179
May-June 1961	N				47	91	
	C				226	219	
	T	9.4	10.2	9.8	273	310	583
Total		100.0	99.9	99.9			
No response or no full-time job	N				306	570	
	C				585	821	
	T				891	1391	2282

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-11. Found first full-time job through:							
Friend or relative	N				469	427	
	C				766	368	
	T	41.6	25.8	33.5	1235	795	2030
High school	N				54	208	
	C				41	57	
	T	3.2	8.6	5.9	95	265	360
Some other school	N				7	49	
	C				15	13	
	T	0.7	2.0	1.4	22	62	84
Union or bargaining group	N				7	1	
	C				9	1	
	T	0.5	0.1	0.3	16	2	18
U.S. Employment Service	N				36	117	
	C				23	22	
	T	2.0	4.5	3.3	59	139	198
Other public employment agency	N				13	66	
	C				15	23	
	T	0.9	2.9	1.9	28	89	117
Private employment agency	N				17	84	
	C				20	39	
	T	1.2	4.0	2.6	37	123	160
An advertisement	N				34	108	
	C				31	55	
	T	2.2	5.3	3.8	65	163	228
Direct application to employer	N				651	892	
	C				760	553	
	T	47.5	46.9	47.2	1411	1445	2856
Total		99.8	100.1	99.9			
No response or no full-time job	N				285	537	
	C				555	797	
	T				840	1334	2174

TABLE 10-1 (continued)

Item		Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
			Boys	Girls	All	Boys	Girls	All
Q-12.	Starting Pay (rate per year)							
	Median per year					$2698	$2294	$2445
	0- 500	N				4	7	
		C				5	12	
		T	0.3	0.6	0.5	9	19	28
	501-1000	N				85	62	
		C				38	63	
		T	4.3	4.2	4.2	123	125	248
	1001-1500	N				63	152	
		C				71	135	
		T	4.7	9.6	7.2	134	287	421
	1501-2000	N				116	275	
		C				143	201	
		T	9.1	15.9	12.5	259	476	735
	2001-2500	N				289	679	
		C				386	332	
		T	23.6	33.7	28.8	675	1011	1686
	2501-3000	N				244	444	
		C				337	210	
		T	20.3	21.8	21.1	581	654	1235
	3001-3500	N				192	196	
		C				255	99	
		T	15.6	9.8	12.7	447	295	742
	3501-4000	N				99	66	
		C				152	31	
		T	8.8	3.2	5.9	251	97	348
	4001-4500	N				67	15	
		C				92	11	
		T	5.6	0.9	3.2	159	26	185
	4501-5000	N				29	2	
		C				55	3	
		T	2.9	0.2	1.5	84	5	89
	5001-5500	N				20	2	
		C				42	1	
		T	2.2	0.1	1.1	62	3	65
	5501-6000	N				11	1	
		C				16	1	
		T	0.9	0.1	0.5	27	2	29

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-12. Continued							
6001-6500	N				6	1	
	C				11	1	
	T	0.6	0.1	0.3	17	2	19
6501-7000	N				5	0	
	C				7	0	
	T	0.4	0.0	0.2	12	0	12
7001-7500	N				2	0	
	C				2	0	
	T	0.1	0.0	0.1	4	0	4
7501-8000	N				3	0	
	C				3	0	
	T	0.2	0.0	0.1	6	0	6
8001-8500	N				1	0	
	C				2	0	
	T	0.1	0.0	0.1	3	0	3
8501 or more	N	0.0	0.0	0.0	3	1	
	C	0.0	0.0	0.0	4	0	
	T	0.1	0.0	0.0	7	1	8
Total		99.8	100.2	100.0			
No response	N				331	584	
	C				613	828	
	T				944	1412	2356

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-15. Did you have a full-time job in May 1961?							
Yes, full-time	N				910	1350	
	C				431	221	
	T	37.3	37.4	37.4	1341	1571	2912
Yes, part-time	N				174	191	
	C				416	326	
	T	16.4	12.3	14.2	590	517	1107
No, but wanted full-time job	N				124	192	
	C				185	139	
	T	8.6	7.9	8.2	309	331	640
No, but wanted part-time job	N				22	28	
	C				86	92	
	T	3.0	2.9	2.9	108	120	228
No, was in school	N				102	289	
	C				961	955	
	T	29.6	29.6	29.6	1063	1244	2307
No, am housewife	N				1	211	
	C				0	18	
	T	0.0	5.5	3.0	1	229	230
No, didn't want job for some other reason	N				120	118	
	C				61	69	
	T	5.0	4.5	4.7	181	187	368
Total		99.9	100.1	100.0			
No response	N				119	109	
	C				94	109	
	T				213	218	431

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-16. Pay at time of completing questionnaire (rate per year).							
Median per year					$2894	$2630	$2719
$ 0- 500	N				3	3	
	C				3	3	
	T	0.4	0.4	0.4	6	6	12
$ 501-1000	N				45	28	
	C				15	10	
	T	4.4	2.4	3.3	60	38	98
$1001-1500	N				139	58	
	C				28	14	
	T	12.2	4.5	8.1	167	72	239
$1501-2000	N				45	118	
	C				32	29	
	T	5.6	9.2	7.5	77	147	224
$2001-2500	N				128	363	
	C				70	60	
	T	14.5	26.5	20.9	198	423	621
$2501-3000	N				142	378	
	C				83	60	
	T	16.4	27.4	22.3	225	438	663
$3001-3500	N				151	258	
	C				81	43	
	T	16.9	18.8	18.0	232	301	533
$3501-4000	N				98	100	
	C				55	18	
	T	11.2	7.4	9.1	153	118	271
$4001-4500	N				71	33	
	C				36	6	
	T	7.8	2.4	4.9	107	39	146
$4501-5000	N				39	6	
	C				21	1	
	T	4.4	0.4	2.3	60	7	67
$5001-5500	N				23	3	
	C				15	0	
	T	2.8	0.2	1.4	38	3	41
$5501-6000	N				12	1	
	C				8	1	
	T	1.5	0.1	0.7	20	2	22
$6001-6500	N				6	1	
	C				3	0	
	T	0.7	0.1	0.3	9	1	10

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-16. continued							
$6501-7000	N				4	1	
	C				4	0	
	T	0.6	0.1	0.3	8	1	9
$7001-7500	N				2	0	
	C				1	0	
	T	0.2	0.0	0.1	3	0	3
$7501-8000	N				3	1	
	C				1	0	
	T	0.3	0.1	0.2	4	1	5
$8001-8500	N				0	0	
	C				0	0	
	T	0.0	0.0	0.0	0	0	0
$8501 or more	N				2	0	
	C				1	1	
	T	0.2	0.1	0.1	3	1	4
Total		100.1	100.1	99.9			
No response	N				657	1136	
	C				1778	1683	
	T				2435	2819	5254
Q-19. How did you like this job?							
Very well	N				413	894	
	C				191	139	
	T	41.7	62.4	52.7	604	1033	1637
Fairly well	N				395	400	
	C				211	91	
	T	41.8	29.7	35.3	606	491	1097
Not very well	N				106	72	
	C				59	22	
	T	11.4	5.7	8.3	165	94	259
Not at all	N				50	26	
	C				24	11	
	T	5.1	2.2	3.6	74	37	111
Total		100.0	100.0	99.9			
No response or no full-time job	N				608	1095	
	C				1750	1667	
	T				2358	2762	5120

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-20. Plans about type of work done on job.							
Plans to make career of it	N				152	108	
	C				52	22	
	T	15.0	8.3	11.4	204	130	334
No present plans to change	N				227	613	
	C				66	55	
	T	21.5	42.6	32.8	293	668	961
Plan to stay in it a few years	N				202	270	
	C				94	57	
	T	21.7	20.9	21.3	296	327	623
Plan to change soon	N				342	345	
	C				226	98	
	T	41.7	28.3	34.5	568	443	1011
Total		99.9	100.1	100.0			
No response	N				649	1150	
	C				1796	1696	
	T				2445	2846	5291

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-21. How long were you looking for a full-time job between June 1, 1960-June 1, 1961?							
Not at all	N				536	691	
	C				496	299	
	T	43.3	38.9	41.1	1032	990	2022
Less than a week	N				56	90	
	C				71	44	
	T	5.3	5.3	5.3	127	134	261
1-2 weeks	N				86	137	
	C				85	54	
	T	7.2	7.5	7.4	171	191	362
2-4 weeks	N				120	166	
	C				79	51	
	T	8.4	8.5	8.4	199	217	416
1-2 months	N				135	214	
	C				83	49	
	T	9.2	10.3	9.8	218	263	481
2-4 months	N				142	219	
	C				83	51	
	T	9.4	10.6	10.1	225	270	495
4-6 months	N				87	135	
	C				45	22	
	T	5.5	6.2	5.9	132	157	289
More than 6 months	N				119	226	
	C				158	94	
	T	11.6	12.6	12.1	277	320	597
Total		99.9	99.9	100.1			
Didn't want full-time job	N				132	407	
	C				905	1064	
	T	30.3	36.7	33.8	1037	1471	2508
No response	N				159	201	
	C				229	203	
	T				388	404	792

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-22. Most important aspect of job or career is:							
Starting salary	N				34	72	
	C				45	46	
	T	2.1	2.7	2.4	79	118	197
Future salary	N				140	113	
	C				220	71	
	T	9.6	4.2	6.7	360	184	544
Working conditions	N				68	240	
	C				51	77	
	T	3.2	7.3	5.4	119	317	436
Job security	N				359	384	
	C				268	139	
	T	16.8	12.1	14.3	627	523	1150
Good supervisors	N				11	33	
	C				5	8	
	T	0.4	0.9	0.7	16	41	57
Good fellow-workers	N				27	114	
	C				21	37	
	T	1.3	3.5	2.5	48	151	199
Importance of work	N				36	74	
	C				88	77	
	T	3.3	3.5	3.4	124	151	275
Opportunity for promotion	N				273	254	
	C				277	75	
	T	14.7	7.6	10.9	550	329	879
Good fringe benefits	N				6	10	
	C				2	2	
	T	0.2	0.3	0.2	8	12	20
Serving others	N				34	226	
	C				109	241	
	T	3.8	10.8	7.6	143	467	610
Personal interest in work	N				538	916	
	C				1120	1126	
	T	44.4	47.1	45.9	1658	2042	3700
Total		99.8	100.0	100.0			
No response	N				46	51	
	C				28	30	
	T				74	81	155

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-23. Second most important aspect of job or career is:							
Starting salary	N				59	141	
	C				105	123	
	T	4.4	6.1	5.3	164	264	428
Future salary	N				291	319	
	C				491	237	
	T	21.0	12.9	16.6	782	556	1338
Working conditions	N				152	352	
	C				161	220	
	T	8.4	13.2	11.0	313	572	885
Job security	N				307	306	
	C				343	209	
	T	17.4	12.0	14.5	650	515	1165
Good supervisors	N				27	71	
	C				18	31	
	T	1.2	2.4	1.8	45	102	147
Good fellow-workers	N				74	254	
	C				74	139	
	T	4.0	9.1	6.7	148	393	541
Importance of work	N				75	132	
	C				201	205	
	T	7.4	7.8	7.6	276	337	613
Opportunity for promotion	N				276	305	
	C				339	147	
	T	16.5	10.4	13.3	615	452	1067
Good fringe benefits	N				20	27	
	C				14	10	
	T	0.9	0.9	0.9	34	37	71
Serving others	N				42	170	
	C				130	272	
	T	4.6	10.2	7.6	172	442	614
Personal interest in work	N				200	352	
	C				327	302	
	T	14.1	15.1	14.7	527	654	1181
Total		99.9	100.1	100.0			
No response	N				49	58	
	C				31	34	
	T				80	92	172

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
MISCELLANEOUS							
Q-25. In high school, I wish I							
Had studied more	N				1077	1580	
	C				1518	1175	
	T	68.8	63.2	65.8	2595	2755	5350
Had not	N				464	848	
	C				714	753	
	T	31.2	36.8	34.2	1178	1601	2779
Total		100.0	100.0	100.0			
No response	N				31	59	
	C				2	1	
	T				33	60	93
Had taken more college prep courses	N				394	444	
	C				534	517	
	T	24.6	22.1	23.2	928	961	1889
Had not	N				1147	1983	
	C				1698	1411	
	T	75.4	77.9	76.8	2845	3394	6239
Total		100.0	100.0	100.0			
No response	N				31	59	
	C				2	1	
	T				33	60	93
Had taken more vocational courses	N				318	538	
	C				145	219	
	T	12.2	17.2	14.9	463	757	1220
Had not	N				1244	1935	
	C				2088	1709	
	T	87.8	82.8	85.1	3332	3644	6976
Total		100.0	100.0	100.0			
No response	N				10	14	
	C				1	0	
	T				11	14	25
Had had more social life	N				237	439	
	C				460	319	
	T	18.3	17.2	17.7	697	758	1455
Had not	N				1334	2048	
	C				1774	1610	
	T	81.7	82.8	82.3	3108	3658	6766
Total		100.0	100.0	100.0			

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-25. continued							
No response	N				0	0	
	C				0	0	
	T				0	0	0
Q-26. Are you married?							
Yes, married in high school	N				18	80	
	C				4	5	
	T	11.5	13.4	13.0	22	85	107
Yes, married after high school	N				122	476	
	C				47	74	
	T	88.5	86.6	87.0	169	550	719
Subtotal		100.0	100.0	100.0			
No, I plan to marry this year	N				48	162	
	C				23	54	
	T	2.0	5.8	4.0	71	216	287
No, I plan to marry next year	N				77	200	
	C				52	83	
	T	3.7	7.6	5.7	129	283	412
No, I plan to marry in 3 years	N				201	329	
	C				256	328	
	T	12.9	17.6	15.3	457	657	1114
No, I plan to marry sometime	N				940	1118	
	C				1675	1295	
	T	74.1	64.7	69.3	2615	2413	5028
No, I don't expect to marry	N				119	92	
	C				140	67	
	T	7.3	4.3	5.8	259	159	418
Total		100.0	100.0	100.1			
No (plans not stated)	N				11	8	
	C				15	6	
	T				26	14	40
No response	N				35	22	
	C				20	18	
	T				55	40	95

TABLE 10-1 (continued)

	Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
			Boys	Girls	All	Boys	Girls	All
Q-27.	Still in touch with high-school friends?							
	None	N				79	67	
		C				55	25	
		T	3.6	2.1	2.8	134	92	226
	One or two	N				502	901	
		C				588	535	
		T	29.0	32.7	31.0	1090	1436	2526
	Many	N				848	1307	
		C				1349	1140	
		T	58.4	55.7	56.9	2197	2447	4644
	Almost all	N				114	199	
		C				229	217	
		T	9.1	9.5	9.3	343	416	759
	Total		100.1	100.0	100.0			
	No response	N				28	13	
		C				13	13	
		T				41	26	67
Q-29.	Time sick at home or in hospital in last year:							
	None	N				1007	1071	
		C				1441	985	
		T	65.0	46.9	55.3	2448	2056	4504
	Less than 1 week	N				360	800	
		C				565	587	
		T	24.6	31.6	28.4	925	1387	2312
	1-2 weeks	N				115	403	
		C				147	242	
		T	7.0	14.7	11.1	262	645	907
	3-5 weeks	N				38	136	
		C				47	72	
		T	2.3	4.7	3.6	85	208	293
	6-12 weeks	N				15	31	
		C				12	18	
		T	0.7	1.1	0.9	27	49	76
	3-4 months	N				6	14	
		C				4	7	
		T	0.3	0.5	0.4	10	21	31

TABLE 10-1 (continued)

	Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
			Boys	Girls	All	Boys	Girls	All
Q-29.	Continued							
	5-7 months	N				3	9	
		C				2	3	
		T	0.1	0.3	0.2	5	12	17
	8-11 months	N				1	4	
		C				0	1	
		T	0.0	0.1	0.1	1	5	6
	The whole year	N				1	3	
		C				1	1	
		T	0.1	0.1	0.1	2	4	6
	Total		100.1	100.0	100.1			
	No response	N				26	17	
		C				15	14	
		T				41	31	72
Q-30.	Were you the driver in auto accident (bodily injury or over $100 property damage) after June 1960?							
	No	N				1387	1852	
		C				2008	2385	
		T	90.6	97.0	94.0	3395	4237	7632
	Yes	N				147	54	
		C				205	79	
		T	9.4	3.0	6.0	352	133	485
	Total		100.0	100.0	100.0			
	No response	N				38	23	
		C				20	23	
		T				58	46	104
Q-31.	Of which of the following are you a member?							
	Air Force Reserve	N				4	0	
		C				4	0	
		T	1.0	0.0	1.0	8	0	8
	Army Reserve	N				26	0	
		C				16	0	
		T	5.5	0.0	5.5	42	0	42
	Naval Reserve	N				39	0	
		C				14	0	
		T	7.0	0.0	6.9	53	0	53

TABLE 10-1 (continued)

Item	Group	Percentages Based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-31. Continued							
Marine Corps Reserve	N				8	0	
	C				9	0	
	T	2.2	0.0	2.2	17	0	17
Coast Guard Reserve	N				3	0	
	C				2	0	
	T	0.7	0.0	0.7	5	0	5
Air National Guard	N				3	0	
	C				2	0	
	T	0.7	0.0	0.7	5	0	5
Army National Guard	N				46	0	
	C				15	0	
	T	8.0	0.0	8.0	61	0	61
Air ROTC	N				0	0	
	C				234	1	
	T	30.7	50.0	30.8	234	1	235
Army ROTC	N				3	0	
	C				312	1	
	T	41.3	50.0	41.4	315	1	316
Naval ROTC	N				1	0	
	C				21	0	
	T	2.9	0.0	2.9	22	0	22
None	N				0	0	
	C				0	0	
	T	0.0	0.0	0.0	0	0	0
Total		100.0	100.0	100.1			
No response	N				1439	2486	
	C				1605	1927	
	T				3044	4413	7457
Q-32. Are you now on active duty in the military service?							
Yes, the Air Force	N				123	4	
	C				23	1	
	T	3.9	0.1	1.9	146	5	151
Yes, the Army	N				94	4	
	C				18	1	
	T	3.0	0.1	1.5	112	5	117
Yes, the Navy	N				137	3	
	C				18	0	
	T	4.2	0.1	2.0	155	3	158

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-32. continued							
Yes, the Marine Corps	N				36	1	
	C				6	0	
	T	1.1	0.0	0.5	42	1	43
Yes, the Coast Guard	N				9	0	
	C				2	0	
	T	0.3	0.0	0.1	11	0	11
No, but I have been	N				77	3	
	C				38	1	
	T	3.1	0.1	1.5	115	4	119
No, but I expect to be drafted	N				366	0	
	C				412	2	
	T	21.0	0.0	10.0	778	2	780
No, but I expect to enlist	N				287	27	
	C				694	13	
	T	26.5	1.0	13.0	981	40	1021
No, I don't expect to be	N				409	2248	
	C				955	1815	
	T	36.8	98.5	69.4	1364	4063	5427
Total		99.9	99.9	99.9			
No response	N				34	198	
	C				68	96	
	T				102	294	396
Q-34. For how long have you volunteered for active duty in one of the armed services?							
Not at all	N				999	2238	
	C				1998	1809	
	T	82.5	99.5	91.5	2997	4047	7044
1-5 months	N				7	1	
	C				4	0	
	T	0.3	0.0	0.2	11	1	12
6 months	N				69	0	
	C				35	0	
	T	2.9	0.0	1.4	104	0	104
1 year	N				11	0	
	C				4	0	
	T	0.4	0.0	0.2	15	0	15

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-34. continued							
2 years	N				43	2	
	C				23	1	
	T	1.8	0.1	0.9	66	3	69
3 years	N				103	9	
	C				20	1	
	T	3.4	0.2	1.7	123	10	133
4 years	N				227	5	
	C				46	1	
	T	7.5	0.1	3.6	273	6	279
5 years	N				1	0	
	C				1	0	
	T	0.1	0.0	0.0	2	0	2
6 years	N				7	0	
	C				5	0	
	T	0.3	0.0	0.2	12	0	12
Other	N				0	0	
	C				0	0	
	T	0.0	0.0	0.0	0	0	0
Minority enlistment	N				28	0	
	C				3	0	
	T	0.9	0.0	0.4	31	0	31
Total		100.1	99.9	100.1			
No response	N				76	232	
	C				95	117	
	T				171	349	520

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-35. Availability of car during the past year:							
Had my own	N				802	420	
	C				711	149	
	T	40.2	12.8	25.4	1513	569	2082
Whenever I wanted it	N				160	484	
	C				317	325	
	T	12.7	18.2	15.7	477	809	1286
Most of the time	N				181	440	
	C				451	401	
	T	16.8	18.9	18.0	632	841	1473
Available occasionally	N				128	243	
	C				343	341	
	T	12.5	14.9	13.8	471	584	1055
Had no use for one	N				172	191	
	C				252	323	
	T	11.3	11.6	11.4	424	514	938
I don't drive	N				101	680	
	C				143	366	
	T	6.5	23.5	15.7	244	1046	1290
Total		100.0	99.9	100.0			
No response	N				28	29	
	C				17	23	
	T				45	52	97

TABLE 10-1 (continued)

	Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
			Boys	Girls	All	Boys	Girls	All
Q-36.	Like to serve in Peace Corps?							
	Yes, for 4 years	N				87	40	
		C				94	53	
		T	5.0	2.2	3.5	181	93	274
	Yes, for 3 years	N				27	12	
		C				41	26	
		T	1.9	.9	1.4	68	38	106
	Yes, for 2 years	N				114	83	
		C				271	206	
		T	10.6	6.9	8.6	385	289	674
	Yes, for 1 year	N				146	205	
		C				331	375	
		T	13.1	13.9	13.6	477	580	1057
	No	N				1077	1951	
		C				1407	1157	
		T	68.2	74.7	71.7	2484	3108	5592
	Total		98.8	98.6	98.8			
	No response	N				121	196	
		C				88	113	
		T				209	309	518
Q-38.	Have attended a recognized college:							
	2-year college	C	17.4	16.5	17.0	389	318	707
	4-year college	C	80.0	81.0	80.4	1787	1562	3349
	Unidentified College	C	2.6	2.5	2.6	58	49	107
	Total	C	100.0	100.0	100.0			
	Attending any recognized college	C	58.7	43.7	50.6	2234	1929	4163
	Not attending recognized college	N	41.3	56.3	49.4	1573	2486	4059
	Total		100.0	100.0	100.0			

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-39. How many miles from home is the college you attend or last attended?							
0- 99	T	63.6	63.7	63.6	1387	1200	2587
100- 199	T	15.3	14.4	14.9	333	272	605
200- 299	T	6.6	7.2	6.9	144	136	280
300- 399	T	4.1	4.6	4.3	89	87	176
400- 499	T	1.9	2.3	2.1	42	43	85
500- 599	T	1.6	1.3	1.4	34	24	58
600- 699	T	1.0	1.2	1.1	22	22	44
700- 799	T	0.8	0.8	0.8	18	15	33
800- 899	T	0.6	0.7	0.7	14	13	27
900- 999	T	0.4	0.5	0.4	8	9	17
1000-1099	T	0.7	0.8	0.8	15	16	31
1100-1999	T	2.4	1.8	2.1	52	33	85
2000 or over	T	1.1	0.8	0.9	23	15	38
Total		100.1	100.1	100.0			
No response	T				51	42	93

TABLE 10-1 (continued)

Item	Group	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
Q-40. Semester hours of college credit as of June 1961							
Median of respondents					28.53	30.16	29.63
Number responding		88.7	88.9	88.8	1984	1713	3697
No response		11.3	11.1	11.2	252	213	465
Total		100.0	100.0	100.0			

TABLE 10-1 (continued)

Item	Medians			Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All
Q-41. Median College grades in: (A=5; B=4; C=3; D=2; F=1)									
Mathematics	3.25	3.40	3.30						
No. of Respondents							1519	748	2267
No grades given				0.8	0.7	0.7	15	12	27
No courses taken				21.8	54.0	36.5	428	890	1318
Physical Sciences	3.23	3.30	3.26						
No. of respondents							1199	687	1886
No grades given				0.5	0.4	0.4	9	6	15
No courses taken				34.8	57.0	45.1	644	920	1564
Biological Sciences	3.17	3.32	3.26						
No. of Respondents							659	918	1577
No grades given				0.4	0.6	0.5	7	10	17
No courses taken				60.8	43.4	52.3	1033	713	1746
Social Sciences	3.27	3.37	3.32						
No.of Respondents							1445	1379	2824
No grades given				0.7	0.7	0.7	14	13	27
No courses taken				23.3	19.0	21.3	444	326	770
English Composition	3.15	3.55	3.32						
No. of Respondents							1915	1669	3584
No grades given				1.0	1.1	1.1	21	20	41
No courses taken				5.1	5.2	5.1	104	92	196
English Literature	3.24	3.62	3.42						
No. of Respondents							653	649	1302
No grades given				0.7	0.6	0.7	12	9	21
No courses taken				59.6	57.6	58.6	980	895	1875
Foreign Languages	3.38	3.75	3.60						
No. of Respondents							525	626	1151
No grades given				0.5	0.5	0.5	7	8	15
No courses taken				67.4	59.7	63.6	1099	942	2041
Fine Arts	3.56	3.83	3.76						
No. of Respondents							222	490	712
No grades given				0.4	0.7	0.6	6	11	17
No courses taken				85.2	67.2	76.3	1317	1027	2344

TABLE 10-1 (continued)

Item	Medians			Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All
Q-41. continued									
Music	4.05	4.09	4.08						
No. of Respondents							258	512	770
No grades given				0.7	1.2	0.9	11	18	29
No courses taken				82.8	65.8	74.3	1293	1020	2313
Psychology	3.27	3.44	3.37						
No. of Respondents							436	683	1119
No grades given				0.4	0.8	0.6	7	13	20
No courses taken				72.5	56.1	64.4	1167	889	2056
Philosophy	3.41	3.55	3.48						
No. of Respondents							178	192	370
No grades given				0.3	0.3	0.3	5	5	10
No courses taken				88.0	86.8	87.2	1352	1229	2581
Religion	3.59	3.78	3.70						
No. of Respondents							342	402	744
No grades given				0.4	0.6	0.5	7	9	16
No courses taken				78.0	73.3	75.7	1236	1127	2363
Education	3.54	3.83	3.75						
No. of Respondents							163	333	496
No grades given				0.5	0.9	0.7	8	13	21
No courses taken				88.9	77.2	83.1	1364	1172	2536
Engineering	3.63	3.17	3.62						
No. of Respondents							386	8	394
No grades given				0.7	0.2	0.5	11	3	14
No courses taken				75.0	99.2	86.6	1193	1154	2347
Business Admin.	3.36	3.82	3.56						
No. of Respondents							321	227	548
No grades given				0.4	0.4	0.4	6	7	13
No courses taken				79.4	84.4	81.8	1256	1271	2527
Home Economics	3.00	3.86	3.82						
No. of Respondents							12	163	175
No grades given				0.2	0.2	0.2	3	3	6
No courses taken				99.0	88.8	93.9	1482	1323	2805
Agri. & Forestry	3.68	3.83	3.69						
No. of Respondents							77	6	83
No grades given				0.3	0.3	0.3	4	4	8
No courses taken				94.6	99.3	96.9	1430	1446	2876

TABLE 10-1 (continued)

Item	Medians			Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All
Q-41. continued									
Other courses	3.81	3.88	3.85						
No. of Respondents							701	702	1403
No grades given				1.3	1.6	1.4	15	16	31
No courses taken				37.4	28.8	33.4	428	291	719
Average in all courses	3.20	3.42	3.29						
No. of Respondents							1930	1665	3595
No grades given				0.2	0.3	0.3	4	6	10
No courses taken				0.1	0.0	0.1	1	1	2

Item	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-42. Did you take college-prep math in high school?						
Yes	88.8	87.1	88.0	1920	1628	
No	11.2	12.9	12.0	241	241	
Total	100.0	100.0	100.0	2161	1869	4030
0 Semesters	2.0	1.7	1.9	38	28	
1 Semester	3.1	2.5	2.8	59	40	
2 Semesters	10.7	14.4	12.4	205	235	
3 Semesters	4.0	3.5	3.7	76	57	
4 Semesters	16.0	30.5	22.7	307	497	
5 Semesters	3.3	3.5	3.4	63	57	
6 Semesters	20.6	25.9	23.0	395	422	
7 Semesters	4.7	3.0	3.9	90	49	
8 Semesters	31.8	13.7	23.5	610	223	
9 Semesters	4.0	1.2	2.7	77	20	
Total	100.2	99.9	100.0	1920	1628	3548
No response				72	60	132

TABLE 10-1 (continued)

Item	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-43. In college have you enrolled in trig., algebra, geometry, calculus, or any combination of these?						
Yes	65.3	32.4	50.1	1400	601	
No, but I plan to.	15.0	18.5	16.6	321	343	
No, I don't expect to.	19.8	49.0	33.3	424	908	
Total	100.1	99.9	100.0	2145	1852	3997
No response				88	76	164
Q-44. In which field do you expect to major in college?						
Math	6.2	3.8	5.1	131	68	
Physical science	7.4	2.0	4.9	156	36	
Biological science	7.6	6.2	7.0	162	112	
Social studies	8.0	6.6	7.4	170	120	
English and literature	3.1	8.8	5.7	65	160	
Foreign languages	1.1	4.3	2.5	22	78	
Fine arts	1.9	3.9	2.8	41	71	
Music	1.4	2.6	1.9	29	47	
Psychology	2.7	3.9	3.2	57	70	
Philosophy	0.9	0.3	0.6	20	5	
Religion	1.1	0.9	1.0	23	16	
Education	5.4	24.7	14.3	115	448	
Engineering	17.7	0.2	9.6	375	4	
Business and Commerce	18.5	10.5	14.8	393	190	
Home Economics	0.1	4.7	2.2	2	84	
Agriculture and forestry	3.6	0.1	2.0	76	1	
Some other field	13.4	16.6	14.9	284	301	
Total	100.1	100.1	99.9	2121	1811	3932
No response				113	119	232
Q-45. Degree you plan to earn:						
None	9.6	15.2	12.2	215	293	
B.A. or B.S.	46.2	52.7	49.2	1028	1017	
M.A. or M.S.	19.2	18.2	18.8	428	352	
Ph.D.	9.4	3.0	6.4	209	57	
Ed.D.	0.9	1.8	1.3	21	35	
LL.B.	2.7	0.3	1.6	61	5	
M.D.	5.1	1.2	3.3	114	23	
D.D.S.	1.7	0.1	1.0	38	2	
Other	5.1	7.6	6.3	114	146	
Total	99.9	100.1	100.1	2228	1930	4158
No response				7	1	8

TABLE 10-1 (continued)

Item	Percentages based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-46. The main reason you went to college:						
College grads make more money	17.9	5.6	12.3	362	95	
Career I want requires college education	64.5	64.7	64.6	130[illegible]	1102	
Make good personal contacts	2.4	2.3	2.4	4[illegible]	40	
I enjoy learning	7.4	18.0	12.2	149	306	
Most of my friends went	0.3	0.4	0.3	6	7	
Social reasons	0.3	1.2	0.7	6	20	
[illegible]r intercollegiate athletics	0.9	0.0	0.5	18	0	
[illegible] parents wanted me to	3.1	4.5	3.7	62	76	
No special reasons	3.2	3.4	3.3	65	57	
Total	100.0	100.1	100.0	2018	1703	3721
No response				7	1	8
Q-47. Are you still in college?						
Yes	85.8	83.4	84.7	1849	1553	
No, I dropped out	14.2	16.6	15.3	305	308	
Total	100.0	100.0	100.0	2154	1861	4015
I dropped out because:						
I was offered a good job.	5.9	7.1	6.5	18	22	
I became homesick.	0.7	1.0	0.8	2	3	
I didn't enjoy social life.	0.7	0.6	0.7	2	2	
I got married.	2.3	13.0	7.7	7	40	
College work was boring.	5.6	2.6	4.1	17	8	
I had to work too hard.	1.3	1.3	1.3	4	4	
I was afraid of failing.	6.6	2.9	4.7	20	9	
I failed.	23.9	9.4	16.6	73	29	
I had financial difficulties.	21.6	15.3	18.4	66	47	
I became ill.	3.0	6.2	4.6	9	19	
of family emergency.	2.0	2.3	2.1	6	7	
of some other reason.	26.6	38.3	32.5	81	118	
Total	100.2	100.0	100.0	305	308	613
No response				81	67	148

TABLE 10-1 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-48. Where did you live while attending college?						
At home, travel time 1 hr. or less	37.3	31.8	34.7	803	592	
At home, travel time over 1 hr.	2.2	2.1	2.2	48	39	
In college dormitory	45.2	57.0	50.7	972	1063	
In fraternity or sorority house	4.1	1.2	2.7	88	22	
In rented room or apt.	8.3	3.1	5.9	179	57	
With friends or relatives	1.4	1.8	1.6	29	34	
Some other place	1.5	3.0	2.2	33	57	
Total	100.0	100.0	100.0	2152	1864	4016
No response				82	65	147
Q-49. Cost of tuition, fees, books for first year of college.						
Median for respondents (in dollars)				446.10	460.10	452.50
Less than $50	3.2	3.3	3.2	68	60	
$50-$99	7.3	7.0	7.1	156	127	
$100-$199	11.9	11.2	11.6	254	204	
$200-$299	13.9	13.6	13.8	297	249	
$300-$499	18.7	18.7	18.7	399	342	
$500-$749	12.7	13.1	12.9	272	239	
$750-$999	11.9	12.4	12.2	254	228	
$1000-$1499	13.7	14.2	13.9	292	260	
$1500 or more	6.7	6.6	6.6	143	120	
Total	100.0	100.1	100.0	2135	1829	3964
No response				99	98	197

TABLE 10-1 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-50. Living expenses for first year in college.						
Median for respondents (in dollars)				507.73	514.05	510.78
Less than $300	32.9	31.5	32.3	664	537	
$300-$499	16.4	17.1	16.7	330	290	
$500-$749	21.2	23.2	22.1	426	395	
$750-$999	16.4	16.3	16.4	331	277	
$1000-$1499	10.0	8.9	9.5	201	152	
$1500-$1999	2.2	2.0	2.1	44	33	
$2000-$2499	0.6	0.6	0.6	11	11	
$2500-$2999	0.2	0.1	0.2	4	2	
$3000 or more	0.2	0.2	0.2	5	3	
Total	100.1	99.9	100.1	2016	1700	3716
No response				219	288	507
Q-51. Percentage of students obtaining funds for college expenses in 1960-1961 from:						
NDEA loan fund	3.6	5.2	4.3	81	100	181
College loan fund	1.6	1.2	1.4	35	24	59
Loans from banks, etc.	2.6	2.5	2.5	58	48	106
Loans from family, friends	5.9	3.6	4.9	133	70	203
Parents, family, sponsors	66.0	75.4	70.4	1474	1455	2929
A trust fund	2.2	2.5	2.3	48	48	96
Own savings	51.1	36.1	44.2	1141	697	1838
Money saved during period	20.3	16.8	18.7	454	325	779
Scholarships or grants from college	12.1	14.7	13.3	271	284	555
Other scholarships or grants	10.6	14.7	12.5	236	284	520
Q-52. While attending college did you work most of the time?						
Yes	29.2	23.0	26.3	622	424	
No	70.8	77.0	73.7	1509	1419	
Total	100.0	100.0	100.0	2131	1843	3974
No response				103	86	189

TABLE 10-1 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-53. Major plans for summer of 1961:						
Work full time	70.4	50.9	61.4	1505	941	
Work part time	8.0	13.6	10.6	171	251	
Vacation at camp or resort	0.5	0.8	0.7	10	16	
Travel	1.6	2.6	2.1	35	47	
Take summer courses	9.8	15.6	12.5	210	288	
Stay at home	3.2	10.0	6.4	69	185	
Some other plans	6.4	6.5	6.5	137	121	
Total	99.9	100.0	100.2	2137	1849	3986
No response				97	80	177

Item	Percentages Based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-55. Have you joined or pledged a frat. or sorority?						
Yes, now active member.	13.5	13.0	13.3	279	232	
Yes, now a pledge.	6.5	3.6	5.2	134	65	
Yes, was pledged & depledged.	3.6	1.6	2.7	75	29	
Yes, I pledged but was not made active.	0.5	0.4	0.5	11	8	
No, I preferred not to join.	48.1	41.6	45.1	995	743	
No, none on my campus.	20.1	32.3	25.7	416	576	
No, pledging comes later.	7.7	7.5	7.6	159	133	
Total	100.0	100.0	100.1	2069	1786	3855
No response				165	144	309

TABLE 10-1 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding			Weighted Frequencies in Hundreds		
	Boys	Girls	All	Boys	Girls	All
Q-56. How well do you like college?						
Very well	59.4	70.8	64.7	1234	1275	
Fairly well	34.4	24.7	29.9	715	444	
Not very well	4.9	3.2	4.1	102	58	
Not at all	1.3	1.3	1.3	27	23	
Total	100.0	100.0	100.0	2078	1800	3878
No response				156	130	286

TABLE 10-2

Responses to Selected Items on a Special Follow-Up Questionnaire Applicable to 1,341 Pupils Who Were in Grade 12 in the Spring of 1960 and Who Did Not Respond to the Original Follow-Up Questionnaire Sent to Them in 1961-1962

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-1. Did you graduate from high school?						
Yes	95.8	96.5	96.1	2897	2475	5372
No	4.2	3.5	3.9	128	90	218
Total	100.0	100.0	100.0			
No response				48	35	83
F-2. Have you attended any school since high school?						
Yes	47.4	39.5	43.8	1425	1012	2437
No	52.6	60.5	56.2	1578	1553	3131
Total	100.0	100.0	100.0			
No response				71	35	106
F-3. What kind of school have you attended since high school?						
None	53.7	61.1	57.1	1649	1588	3237
Four-year college	24.6	14.0	19.7	755	364	1119
Two-year college	9.2	4.9	7.3	284	128	412
Technical school	0.9	0.4	0.7	26	11	37
School of nursing	0.0	3.9	1.8	0	102	102
School of practical nursing	0.1	0.2	0.1	4	4	8
Business school	2.0	8.9	5.1	62	230	292
Trade school	4.2	4.8	4.5	130	125	255
Armed-forces school	4.8	0.5	2.9	149	13	162
Other	0.4	1.3	0.8	13	34	47
Total	99.9	100.0	100.0			
No response				3	0	3

TABLE 10-2 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-4. Subjects studied in college						
Math	3.5	0.5	2.5	32	2	34
Physical Science	2.8	0.9	2.2	26	4	30
Biological Science	0.3	0.9	0.5	3	4	7
Social Studies	6.7	9.6	7.6	61	42	103
English & Literature	6.7	3.7	5.7	61	16	77
Foreign Language	0.3	0.0	0.2	3	0	3
Fine Arts	0.6	3.6	1.6	5	16	21
Music	1.2	4.0	2.1	11	17	28
Psychology	0.7	3.3	1.6	7	14	21
Philosophy	0.0	0.0	0.0	0	0	0
Religion	0.4	1.9	0.9	4	8	12
Education	4.7	18.5	9.2	43	81	124
Engineering	12.9	0.0	8.7	118	0	118
Business or Commercial	27.7	27.1	27.6	254	119	373
Home Economics	0.0	0.0	0.0	0	0	0
Agriculture and Forestry	3.2	0.0	2.1	29	0	29
Other	28.2	26.0	27.5	258	114	372
Total	99.9	100.0	100.0			
Noncollege or no response				2159	2162	4321
F-5. Are you still attending college?						
Yes	64.9	44.6	58.5	654	210	864
No	35.1	55.4	41.5	353	261	614
Total	100.0	100.0	100.0			
Noncollege				2037	2117	4154
No response				31	11	42
F-6. Reasons given for dropping out of college						
Was offered a good job	13.9	26.5	19.3	46	67	113
Didn't enjoy social life	1.2	1.6	1.4	4	4	8
Got married	3.3	34.8	16.9	11	88	99
College work was boring	0.0	0.0	0.0	0	0	0
Had to work too hard	2.1	0.0	1.2	7	0	7
Afraid of failure	0.0	0.0	0.0	0	0	0
Failed	20.5	3.2	13.0	68	8	76

TABLE 10-2 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-6. (continued)						
Had financial difficulties	12.0	11.1	11.6	40	28	68
Became ill	0.9	5.9	3.1	3	15	18
Emergency in family	0.9	0.0	0.5	3	0	3
Other reasons	45.2	17.0	33.0	150	43	193
Total	100.0	100.1	100.0			
F-7. Are you still attending the school you entered after leaving high school?						
Yes	79.7	60.8	72.8	735	324	1059
No	20.3	39.2	27.2	187	209	396
Total	100.0	100.0	100.0			
F-8. Reasons given for dropping out of school attended after leaving high school.						
Was offered a good job	15.7	20.9	18.3	59	82	141
Homesick	0.0	1.3	0.7	0	5	5
Didn't enjoy social life	0.0	1.0	0.5	0	4	4
Got married	4.0	38.9	21.8	15	153	168
Had to work too hard	1.9	0.8	1.3	7	3	10
Failed	18.1	4.6	11.2	68	18	86
Financial difficulties	11.4	8.1	9.8	43	32	75
Became ill	2.1	5.9	4.0	8	23	31
Emergency in family	0.8	0.0	0.4	3	0	3
Other reasons	46.0	18.6	32.0	173	73	246
Total	100.0	100.1	100.0			
F-9. Are you, or have you been in the military service?						
Yes	32.7	2.9	19.0	977	72	1049
No	67.3	97.1	81.0	2011	2454	4465
Total	100.0	100.0	100.0			
No response				85	74	159

TABLE 10-2 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-10. Of which, if any, are you now a member?						
Air Force Reserve	0.0	0.0	0.0	0	0	0
Army Reserve	20.8	0.0	20.8	16	0	16
Naval Reserve	0.0	0.0	0.0	0	0	0
Marine Corps Reserve	3.9	0.0	3.9	3	0	3
Coast Guard Reserve	0.0	0.0	0.0	0	0	0
Air National Guard	0.0	0.0	0.0	0	0	0
Army National Guard	61.0	0.0	61.0	47	0	47
Air ROTC	0.0	0.0	0.0	0	0	0
Army ROTC	14.3	0.0	14.3	11	0	11
Naval ROTC	0.0	0.0	0.0	0	0	0
Total	100.0	0.0	100.0			
None, or no response				2996	2600	5596
F-11. Are you now on active military duty?						
Air Force	31.7	25.0	31.2	276	16	292
Army	28.4	54.7	30.2	247	35	282
Navy	28.6	20.3	28.0	249	13	262
Marine Corps	9.8	0.0	9.1	85	0	85
Coast Guard	1.6	0.0	1.5	14	0	14
Total	100.1	100.0	100.0			
No, but I have been.	4.7	0.0	0.3	8	0	8
No, but I expect to be drafted.	0.0	0.0	0.0	0	0	0
No, but expect to enlist.	0.0	0.0	0.0	0	0	0
No, I don't expect to be.	95.3	100.0	99.7	163	2384	2547
Total	100.0	100.0	100.0			
All others				2033	152	2185
F-12. How long have you been in the military service?						
1-5 months	1.2	0.4	0.8	35	9	44
6 months	4.3	0.3	2.5	125	8	133
1 year	4.8	0.8	3.0	140	21	161
2 years	4.9	0.6	2.9	143	14	157
3 years	10.0	0.2	5.5	292	4	296
4 years	1.2	0.1	0.7	35	4	39
5 years	0.2	0.0	0.1	4	0	4
6 years	1.4	0.0	0.7	40	0	40
Other	1.4	0.0	0.8	40	0	40
No time	70.7	97.6	83.1	2060	2449	4509
Total	100.1	100.0	100.1			
No response				160	91	251

TABLE 10-2 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-13. Have you had or do you have a full-time job?						
No answer or no usable answer	39.0	24.1	32.2	1198	627	1825
Housewife	0.0	16.9	7.7	0	439	439
No such job	1.3	4.5	2.7	39	117	156
Lab technician	0.1	0.2	0.1	4	4	8
Technicians other than lab. technicians	0.9	0.0	0.5	28	0	28
Semi-professional	0.4	0.2	0.3	14	4	18
Art, music, theater	0.5	0.2	0.4	16	5	21
Salesclerk	3.4	6.1	4.6	103	158	261
Secretarial, etc.	1.9	25.0	12.5	58	649	707
Computational	0.6	4.2	2.2	19	108	127
Clerical	3.9	2.5	3.3	120	66	186
Elect. & electron.	1.1	0.0	0.6	34	0	34
Mechanic	2.1	0.0	1.1	64	0	64
Earth-moving trades	0.8	0.0	0.4	25	0	25
Structural trade	4.2	0.0	2.3	128	0	128
Other trades	1.3	0.0	0.7	39	0	39
Driver	1.6	0.0	0.8	48	0	48
Clothing & fashion	0.0	0.3	0.1	0	7	7
Food & beverage prep.	2.5	1.0	1.8	78	26	104
Armed forces	17.4	1.0	9.9	535	27	562
Agric., forestry, etc.	2.2	0.2	1.3	68	5	73
Gas station attendant	1.6	0.2	0.9	49	4	53
Food service	0.1	1.1	0.6	4	28	32
Hairdressing, etc.	0.0	1.9	0.9	0	51	51
Menial services	0.3	0.0	0.2	10	0	10
Domestic service	0.0	1.0	0.5	0	27	27
Unskilled	6.9	6.1	6.5	211	160	371
Miscellaneous	5.9	3.4	4.8	183	89	272
Total	100.0	100.1	99.9			

TABLE 10-2 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-14. In what job do you expect to make your career?						
No answer or no usable answer	32.8	14.5	24.4	1008	378	1386
Housewife	0.3	40.1	18.5	10	1042	1052
No such job	0.5	0.3	0.4	15	7	22
Lab. technician	0.2	1.2	0.7	7	31	38
Technicians other than lab. technicians	1.2	0.2	0.7	36	4	40
Semi-professional	9.6	6.0	7.9	295	155	450
Art, music, theater	2.3	1.7	2.0	72	44	116
Salesclerk	0.8	1.3	1.1	26	34	60
Secretarial, etc.	1.1	17.5	8.6	34	455	489
Computational	0.7	2.6	1.5	21	66	87
Clerical	1.4	1.6	1.5	42	42	84
Elect., & Electron.	6.1	0.0	3.3	187	0	187
Mechanic	3.8	0.0	2.0	116	0	116
Earth-moving trades	0.8	0.0	0.5	26	0	26
Structural trades	4.1	0.0	2.2	126	0	126
Other trades	0.4	0.0	0.2	11	0	11
Driver	0.5	0.0	0.3	16	0	16
Clothing & fashion	0.0	0.1	0.1	0	3	3
Food & beverage prep.	1.0	0.2	0.6	32	4	36
Armed forces	3.7	0.3	2.2	114	9	123
Agric., forestry, etc.	3.1	0.0	1.7	96	0	96
Gas station attendant	0.1	0.0	0.1	4	0	4
Food service	0.0	0.6	0.3	0	16	16
Hairdressing. etc.	0.1	3.2	1.5	3	82	85
Menial services	0.0	0.0	0.0	0	0	0
Domestic service	0.0	0.0	0.0	0	0	0
Unskilled	1.9	1.5	1.7	60	38	98
Miscellaneous	23.4	7.3	16.0	719	189	908
Total	99.9	100.2	100.0			

TABLE 10-2 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]			Weighted Frequencies in Hundreds[b]		
	Boys	Girls	All	Boys	Girls	All
F-15. Are you married?						
Yes	19.2	50.9	33.9	572	1315	1887
No	80.8	49.1	66.1	2403	1269	3672
Total	100.0	100.0	100.0			
No answer				98	16	114

[a] The categories of respondents included in the bases for computing percentages appear immediately above the word "Total." The sums of percentages may differ slightly from 100 because of rounding errors.

[b] The frequencies have been weighted to correct for over- and under-representation of certain types of schools in the Project TALENT samples. The absolute values of the weighted frequencies have no meaning. The total weighted frequency for boys, girls, or boys and girls combined can be obtained for each item by adding in any given column the frequencies pertaining to that item.

The unweighted frequencies on which the data are based are 711 boys and 630 girls.

TABLE 10-3

Responses to Selected Items Common to the Original Follow-Up Questionnaire and to the Special Follow-Up Questionnaire Combined to Estimate the Responses of American Twelfth-Grade Pupils in the Spring of 1960

Item and Source	Group[a]	Percentages Based on Weighted Frequencies of Defined Groups[b]			Weighted Frequencies in Hundreds[c]		
		Boys	Girls	All	Boys	Girls	All
C-1 Did you graduate from high school? (Q1; F1)							
Yes	Q				3737	4363	8100
	F				2897	2475	5372
	C	97.5	98.3	97.9	6634	6838	13472
No	Q				39	31	70
	F				128	90	218
	C	2.5	1.7	2.1	167	121	288
Total		100.0	100.0	100.0	6801	6959	13760
No response	Q				31	21	52
	F				48	35	83
	C				79	56	135
Yes + no + no response	C				6880	7015	13895
C-2 What kind of school have you attended since high school? (Q5;F3)							
Four-year college or university	Q				1754	1521	3275
	F				755	364	1119
	C	36.5	26.9	31.6	2509	1885	4394

[a] Q = Responses to original mail questionnaire.
F = Responses to special follow-up questionnaire.
C = Combined responses to original and follow-up questionnaire.

[b] The groups used as bases for computing percentages are those on each line labeled "Total." The sums of percentages may differ slightly from 100 because of rounding errors.

[c] These frequencies are expressed in hundreds and have been weighted to correct for over- and under- representation of certain types of schools in the Project TALENT samples. The absolute values of the weighted frequencies have no meaning.

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-2 Continued							
Two-year college	Q				335	296	631
	F				284	128	412
	C	9.0	6.0	7.6	619	424	1043
Subtotal of four-year or two-year college	Q				2089	1817	3906
	F				1039	492	1531
	C	45.5	32.9	39.1	3128	2309	5437
Technical school or institute	Q				131	47	178
	F				26	11	37
	C	2.3	0.8	1.5	157	58	215
School of nursing (3 years)	Q				1	158	159
	F				0	102	102
	C	0.0	3.7	1.9	1	260	261
School of practical nursing	Q				0	29	29
	F				4	4	8
	C	0.1	0.5	0.3	4	33	37
Business school	Q				76	344	420
	F				62	230	292
	C	2.0	8.2	5.1	138	574	712
Trade school	Q				103	96	199
	F				130	125	255
	C	3.4	3.2	3.3	233	221	454
Armed-forces school (enlisted)	Q				292	10	302
	F				149	13	162
	C	6.4	0.3	3.3	441	23	464
Some other school	Q				108	160	268
	F				13	34	47
	C	1.8	2.8	2.3	121	194	315
No school or no response	Q				1006	1755	2761
	F				1649	1588	3237
	C	38.6	47.7	43.2	2655	3343	5998
Total	C	100.1	100.1	100.0	6878	7015	13893

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-3 Have attended a recognized college or university: (Q38; F3)							
Four-year college	Q				1787	1562	3349
	F				755	364	1119
	C	37.0	27.5	32.2	2542	1926	4468
Two-year college	Q				389	318	707
	F				284	128	412
	C	9.8	6.4	8.1	673	446	1119
Unidentified college	Q				58	49	107
	F				0	0	0
	C	0.8	0.7	0.8	58	49	107
Any recognized college	Q				2234	1929	4163
	F				1039	492	1531
	C	47.6	34.5	41.0	3273	2421	5694
No recognized college	Q				1573	2486	4059
	F				2033	2107	4140
	C	52.4	65.5	59.0	3606	4593	8199
Total		100.0	100.0	100.0	6879	7014	13893
No response	Q				0	0	0
	F				3	0	3
	C				3	0	3
C-4 Have graduated from high school (Q1,Q5; F3)							
and attended a two-year or four-year college	Q				2089	1817	3906
	F				1039	492	1531
	C	47.2	33.8	40.4	3128	2309	5437
but have not attended a two-year or four-year college	Q				1648	2546	4194
	F				1858	1983	3841
	C	52.8	66.2	59.6	3506	4529	8035
Total	C	100.0	100.0	100.0	6634	6838	13472
No response	Q				31	21	52
	F				48	35	83
	C				79	56	135
C-5 Have graduated from high school (Q1,Q38;F3)							
and attended a recognized college	Q				2234	1929	4163
	F				1039	492	1531
	C	49.3	35.4	42.3	3273	2421	5694

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-5 Continued							
but have not attended a recognized college	Q				1503	2434	3937
	F				1858	1983	3841
	C	50.7	64.6	57.7	3361	4417	7778
Total	C	100.0	100.0	100.0	6634	6838	13472
No response	Q				31	21	52
	F				48	35	83
	C				79	56	135
C-6 Are you still attending college? (Q47; F5)							
Yes	Q				1849	1553	3402
	F				654	210	864
	C	79.2	75.6	77.7	2503	1763	4266
No	Q				305	308	613
	F				353	261	614
	C	20.8	24.4	22.3	658	569	1227
Total	C	100.0	100.0	100.0	3161	2332	5493
No response	Q				81	67	148
	F				31	11	42
	C				112	78	190
C-7 Reasons for dropping out of college (Q47; F6)							
Was offered a good job	Q				18	22	40
	F				46	67	113
	C	10.0	15.9	12.8	64	89	153
Became homesick	Q				2	3	5
	F				0	0	0
	C	0.3	0.5	0.4	2	3	5
Didn't enjoy social life	Q				2	2	4
	F				4	4	8
	C	0.9	1.1	1.0	6	6	12

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-7 Continued							
Got married	Q				7	40	47
	F				11	88	99
	C	2.8	22.8	12.2	18	128	146
College work was boring	Q				17	8	25
	F				0	0	0
	C	2.7	1.4	2.1	17	8	25
Had to work too hard	Q				4	4	8
	F				7	0	7
	C	1.7	0.7	1.3	11	4	15
Was afraid of failing	Q				20	9	29
	F				0	0	0
	C	3.1	1.6	2.4	20	9	29
Failed	Q				73	29	102
	F				68	8	76
	C	22.1	6.6	14.9	141	37	178
Had financial difficulties	Q				66	47	113
	F				40	28	68
	C	16.6	13.4	15.1	106	75	181
Became ill	Q				9	19	28
	F				3	15	18
	C	1.9	6.1	3.8	12	34	46
Emergency in family	Q				6	7	13
	F				3	0	3
	C	1.4	1.2	1.3	9	7	16
Some other reason	Q				81	118	199
	F				150	43	193
	C	36.3	28.7	32.7	231	161	392
Total	C	99.8	100.0	100.0	637	561	1198

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies		
		Boys	Girls	All	Boys	Girls	All
C-8 Expected college major: (Q44; F4)							
Mathematics	Q				131	68	199
	F				32	2	34
	C	5.4	3.1	4.4	163	70	233
Physical Science	Q				156	36	192
	F				26	4	30
	C	6.0	1.8	4.2	182	40	222
Biological Science	Q				162	112	274
	F				3	4	7
	C	5.4	5.2	5.3	165	116	281
Social Science	Q				170	120	290
	F				61	42	103
	C	7.6	7.2	7.4	231	162	393
English & Literature	Q				65	160	225
	F				61	16	77
	C	4.2	7.8	5.7	126	176	302
Foreign Language	Q				22	78	100
	F				3	0	3
	C	0.8	3.5	1.9	25	78	103
Fine Arts	Q				41	71	112
	F				5	16	21
	C	1.5	3.9	2.5	46	87	133
Music	Q				29	47	76
	F				11	17	28
	C	1.3	2.8	2.0	40	64	104
Psychology	Q				57	70	127
	F				7	14	21
	C	2.1	3.7	2.8	64	84	148

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies		
		Boys	Girls	All	Boys	Girls	All
C-8 Continued							
Philosophy	Q				20	5	25
	F				0	0	0
	C	0.7	0.2	0.5	20	5	25
Religion	Q				23	16	39
	F				4	8	12
	C	0.9	1.1	1.0	27	24	51
Education	Q				115	448	563
	F				43	81	124
	C	5.2	23.5	13.0	158	529	687
Engineering	Q				375	4	379
	F				118	0	118
	C	16.2	0.2	9.4	493	4	497
Business or Commercial	Q				393	190	583
	F				254	119	373
	C	21.3	13.7	18.1	647	309	956
Home Economics	Q				2	84	86
	F				0	0	0
	C	0.1	3.7	1.6	2	84	86
Agriculture and Forestry	Q				76	1	77
	F				29	0	29
	C	3.5	0.0	2.0	105	1	106
Other courses	Q				284	301	585
	F				258	114	372
	C	17.9	18.5	18.1	542	415	957
Total	C	100.1	99.9	99.9	3036	2248	5284
No response	Q				113	119	232
	F				122	45	167
	C				235	164	399
C-9 Of which, if any, are you now a member? (Q31; F10)							
Air Force Reserve	Q				4	0	4
	F				0	0	0
	C	0.5	0.0	0.5	4	0	4

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-9 Continued							
Army Reserve	Q				42	0	42
	F				16	0	16
	C	6.9	0.0	6.9	58	0	58
Naval Reserve	Q				53	0	53
	F				0	0	0
	C	6.3	0.0	6.3	53	0	53
Marine Corps Reserve	Q				17	0	17
	F				3	0	3
	C	2.4	0.0	2.4	20	0	20
Coast Guard Reserve	Q				5	0	5
	F				0	0	0
	C	0.6	0.0	0.6	5	0	5
Air National Guard	Q				5	0	5
	F				0	0	0
	C	0.6	0.0	0.6	5	0	5
Army National Guard	Q				61	0	61
	F				47	0	47
	C	12.9	0.0	12.9	108	0	108
Air ROTC	Q				234	1	235
	F				0	0	0
	C	28.0	50.0	28.1	234	1	235
Army ROTC	Q				315	1	316
	F				11	0	11
	C	39.0	50.0	39.1	326	1	327
Naval ROTC	Q				22	0	22
	F				0	0	0
	C	2.6	0.0	2.6	22	0	22
Total	C	99.8	100.0	100.0	835	2	837
Any one of these	C	12.1	0.0	6.0	835	2	837
None of them or no response	C	87.9	100.0	94.0	6040	7015	13055
Total		100.0	100.0	100.0	6875	7017	13892

TABLE 10-3 (continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-10 Are you now on active duty in the military service? (Q32; F11)							
The Air Force	Q				146	5	151
	F				276	16	292
	C	6.1	0.3	3.2	422	21	443
The Army	Q				112	5	117
	F				247	35	282
	C	5.2	0.6	2.9	359	40	399
The Navy	Q				155	3	158
	F				249	13	262
	C	5.9	0.2	3.0	404	16	420
The Marine Corps	Q				42	1	43
	F				85	0	85
	C	1.8	0.0	0.9	127	1	128
The Coast Guard	Q				11	0	11
	F				14	0	14
	C	0.4	0.0	0.2	25	0	25
No, but I have been.	Q				115	4	119
	F				8	0	8
	C	1.8	0.1	0.9	123	4	127
No, but I expect to be drafted.	Q				778	2	780
	F				0	0	0
	C	11.3	0.0	5.6	778	2	780
No, but I expect to enlist.	Q				981	40	1021
	F				0	0	0
	C	14.3	0.6	7.3	981	40	1021
No, I don't expect to be.	Q				1364	4063	5427
	F				163	2384	2547
	C	22.2	91.9	57.4	1527	6447	7974
No response	Q				102	294	396
No, and no response	F				2033	152	2185
No, and no response	C	31.0	6.4	18.6	2135	446	2581
Total	C	100.0	100.1	100.0	6881	7017	13898

TABLE 10-3 (Continued)

Item and Source	Group	Percentages Based on Weighted Frequencies of Defined Groups			Weighted Frequencies in Hundreds		
		Boys	Girls	All	Boys	Girls	All
C-11 Are you married? (Q26; F15)							
Yes	Q				191	635	826
	F				572	1315	1887
	C	11.3	28.0	19.8	763	1950	2713
N	Q				3557	3742	7299
	F				2403	1269	3672
	C	88.7	72.0	80.2	5960	5011	10971
Total	C	100.0	100.0	100.0	6723	6961	13684
No response	Q				55	40	95
	F				98	16	114
	C				153	56	209

grade 12 do not receive high-school diplomas at the end of their senior year. In subsequent years, Project TALENT data will show the percentage of pupils who drop out of high school after grade 9. This percentage will, of course, be far higher than 2 per cent.

Responses to item C-2 show that about 31.6 per cent of the twelfth graders entered a four-year college within about a year after leaving high school and about 7.6 per cent entered a two-year college. It should be noted that responses to item C-3 show slightly higher percentages entering these two types of institutions. The explanation for these differences probably lies mainly in the fact that responses to item C-2 depend on the respondents' classification of the types of institution they attended after high school whereas responses to item C-3 depend on a classification of these institutions by Project TALENT personnel. Thus, a respondent may indicate on item C-2 that he is attending a technical institute but the institution he names may qualify as a four-year college (such as Massachusetts Institute of Technology) or a two-year college. Thus, in item C-2, he is classified as attending a technical institute and in item C-3 he is classified as attending a recognized college or university.

The data in item C-5 provide the most meaningful estimates of the percentages of high-school graduates who enter a two-year or four-year college within a year of their graduation from high school. These data show that 49.3 per cent of the boys, 35.4 per cent of the girls, and 42.3 per cent of all high-school graduates entered college within about a year of their graduation. It must be kept in mind that a sizable percentage of high-school graduates enter college for the first time considerably later than one year after graduation from high school.

Of the types of post-high-school institutions that are attended other than two-year and four-year colleges, armed-forces schools for enlisted men accounted for a larger percentage of boys than other types of schools. Trade schools, technical institutes, and business schools accounted for most of the remainder. Girls who entered some type of school other than a college after leaving high school were most likely to attend a business school. About 8 per cent of twelfth-grade girls entered schools of this type. Schools of nursing and trade schools accounted for most of the remainder.

Responses to item C-6 indicated that about 21 per cent of the boys and 24 per cent of the girls who entered college dropped out during or at the end of their freshman year. Their reasons are presented in item C-7. The largest percentage of those who dropped out among the girls (22.8 per cent) did so because of marriage. Among the boys, the largest percentage (22.1 per cent) dropped out because they failed. Other important reasons were to take "good jobs" and because of financial difficulties. In many instances, these two reasons may be merely two faces of the same coin. If so, about 28 per cent of dropouts from college during and at the end of the freshman year may be accounted for by financial considerations.

The subject-matter fields in which the respondents who were in college expected to major are shown in item C-8. Of the boys, 21.3 per cent expected to major in business or commercial subjects, and 16.2 per cent in engineering. Other fields attracted much smaller percentages--social science, 7.6 per cent; and mathematics, 5.4 per cent. Among the girls, education was the most popular major (23.5 per cent). This is followed by business and commercial subjects (13.7 per cent) and English and literature (7.8 per cent). Among the sciences, biology was the most popular for girls (5.2 per cent). It is interesting that almost all of the respondents to the questionnaires answered this question. This may indicate that by the end of the freshman year most college students have made at least a tentative choice of a major field. These choices provide clues to the goals that students have in mind in attending college. These clues certainly suggest that vocational preparation is the principal goal. They are overwhelmingly substantiated by the responses made to question 46 in the mail questionnaire, which read: "What is the main reason you went to college?" About 77 per cent of the respondents indicated that their main reason was either because "college graduates make more money" or because the career they had chosen "required preparation in college." Statements made by many college administrators and faculty members suggest that they do not see eye to eye with the vast majority of their students with respect to the objectives of undergraduate education.

Responses to item C-9 show that about 12 per cent of the boys and virtually none of the girls were members of any of the armed-forces reserve units. Of the boys who were, the largest percentages were in the Army and Air Force ROTC units. About 19 per cent of the boys and 1 per cent of the girls were on active duty in the armed forces. The boys in this group were split rather evenly among the Air Force (6.1 per cent), the Army (5.2 per cent), and the Navy (5.9 per cent).

The last item in Table 10-3, C-11, indicates that about 20 per cent of those who were in grade 12 in 1960 were married about a year after the great majority of them had graduated. In accord with the fact that girls tend to marry boys older than they are, the percentage of boys who were married was 11.3 and of girls was 28.0. Presumably, the percentage of young people of the same ages who dropped out of school before the spring term of the twelfth grade and who were married would be even higher.

Highlights of Data Pertaining to Respondents to the Mail Questionnaire

Because the mail questionnaire was considerably longer and more detailed than the special follow-up questionnaire, a great deal of interesting data appears in Table 10-1. For example, note the implications of responses to Q-4 for programs of adult education; only about 25 per cent of the respondents to the mail questionnaire planned to get no further schooling after high school.

In response to question Q-6, "Did you want to go to college?" about

42 per cent who actually had not entered college a year after completing grade 12 answered that they wanted to go. Of these, almost half reported that they didn't go to college because they couldn't afford it. The next largest percentage giving a specific reason reported that their grades were too low. Thus, financial inability was conceived by young people as a major barrier to college entrance among those respondents to the mail questionnaire who did not attend college during their first year out of high school.

Data regarding jobs are presented in questions 8-23. About one-half of the respondents held one job in the year following secondary school and about one-quarter of them held two or more jobs during that period. About 44 per cent of the respondents found a full-time job before they left high school. In fact, about 12 per cent said that they were working on it before the end of the school year in 1960. However, only 37 per cent were at work on a full-time job in May 1961, about a year after they left grade 12.

A large percentage (33.5) found their first full-time job through friends or relatives, but the largest percentage (47.2) got it through direct application to an employer. The data suggest that the U.S. Employment Service and other public employment agencies find jobs for only a small percentage of recent high-school graduates.

Information about how long it took respondents to the mail questionnaire who were looking for jobs between June 1, 1960 and June 1, 1961 to obtain them is given in Q-21 of Table 10-1. About 43 per cent of the boys and 39 per cent of the girls obtained jobs without delay and another 13 per cent found jobs within two weeks. On the other hand, 12 per cent indicated that it took them more than 6 months.

The median annual starting salary reported for the first full-time job was $2,698 for boys and $2,294 for girls; the median for those holding full-time jobs in May 1961 was reported as $2,894 for boys and $2,630 for girls.

Data yielded by question 19 show that 42 per cent of the boys and 62 per cent of the girls were well satisfied with the jobs they held about a year after leaving high school. However, responses to question 20 show that, while 43 per cent of the girls had no immediate plans to change jobs, only 8 per cent expressed the wish to make a career of it. In contrast, 42 per cent of the boys planned an early change of jobs. These data no doubt reflect the fact that many of the boys were holding a job that they regarded merely as a stepping stone while the girls were looking forward to careers as homemakers.

The most important aspect of a job or career was regarded by both boys and girls as "personal interest in the work." Job security and opportunity for promotion were other considerations regarded as of primary importance.

Responses to questions 25, 30, 35, and 36 may be of interest. About two-thirds of the respondents wish they had studied more in high

school. Only 23 per cent of them wish they had taken more college preparatory courses.

Data about the availability of a car show that, in the year following grade 12, 40 per cent of the boys and 13 per cent of the girls had a car of their own. Another 13 per cent of the boys and 18 per cent of the girls had a car available for use whenever they wanted it. Responses to question 30 indicate that 9.4 per cent of the boys and 3.0 per cent of the girls had been drivers involved in an auto accident causing bodily injury or over $100 property damage in the preceding year.

The Peace Corps apparently was attractive on a one-year basis to about 14 per cent of the respondents and for longer periods to smaller percentages. About 72 per cent were not at all interested in serving in it.

In questions 39-56, some information from respondents who entered college is available that cannot be found in Table 10-3. For example, most college students lived within a hundred miles of the school; in fact, about 37 per cent of them lived at home and commuted to school. Very few lived more than 200 miles away. College grades as reported by the students tended to average out to a C+. Grades in special fields tended to average a little higher: fine arts, B-; music, B; home economics, B-; and education, B-.

Questions 42 and 43 yielded data pertaining to mathematics courses taken in high school and college. Almost a third of the boys took 6 semesters of college-preparatory math in high school and about two-thirds of them took one or more math courses as college freshmen. Among the girls, considerably fewer math courses were taken.

As mentioned earlier in this chapter, the respondents make it clear that the major reason for attending college is either because they think that college graduates make more money or that the careers they have chosen require a college education. However, 7.4 per cent of the boys and 18.0 per cent of the girls stated that they attended college because they enjoy learning. One would hope that these percentages would increase during the college years and that the dominant goal of vocational preparation would be found compatible with pleasure in learning and with scholarly attainment. A comprehensive study of these factors in relation to college curricula and teaching methods is suggested by the data.

The median cost of tuition, fees, and books during the freshman year of college was reported as about $450 while the median cost of living expenses during the same period was reported as about $510. The students met these expenses largely from funds supplied by parents, family members, or sponsors; from their own savings or earnings; and, to a smaller extent, from scholarships and grants. Apparently, about 26 per cent of the students received some grants or scholarships.

About 70 per cent of the boys and 51 per cent of the girls expected to work full time during the summer of 1961 and another 8 per cent of the boys and 14 per cent of the girls expected to work part time. Approxi-

mately 10 per cent of the boys and 14 per cent of the girls planned to take summer courses.

Unfortunately, all of the data pertaining to question 54 in the mail questionnaire cannot be used. However, it is possible to report that there were surprisingly wide ranges in the average numbers of hours reported per week in studying outside of class and in earning money during the college year. Half of the students reported spending an average of 20 hours or more per week in studying outside of class. Since the typical freshman spends perhaps 15-18 hours per week in class or in laboratory periods, it appears that, if we are to believe his own report, he puts in a rather full week on his studies.

Half of the students reported that they spent an average of 6.5 hours or more per week in social activities and an average of 2.5 hours per week in sports and athletics (3.3 hours for the boys and 1.8 hours for the girls).

Almost half of the students reported that they preferred not to join a fraternity or sorority. Nearly two-thirds of them like college "very well" and another 30 per cent like it "fairly well."

The composition of the large group of respondents to the mail questionnaire is shown in Tables 10-4 and 10-5. Inspection of these tables shows that there is a tendency for response rate to increase with aptitude level. This is evident in all regions and among both boys and girls. However, even in the lowest tenth of the aptitude distribution there are large numbers of respondents. Apparently, the response rate is generally higher among girls than among boys. In the Southeast and the Southwest it runs lower than in other parts of the country.

Table 10-6 shows the percentages of twelfth-grade boys and girls who were tested in 1960, who responded to the 1961 mail questionnaire, and who marked certain options to 31 items selected from the Student Information Blank because they showed appreciable differences between the responses made by examinees who later responded to the mail questionnaire and who later did not do so. For example, 60.7 per cent of the twelfth-grade boys who marked choice C to item 137 responded to the mail questionnaire; on the other hand, only 57.4 of the twelfth-grade boys who marked one of options A, B, D, or E responded to the same questionnaire. The selected items pertain mainly to the family and the pupil's educational experiences. The data show that rate of response is positively correlated with the socio-economic status of the family and with stability of residence, regularity of school attendance, and tendency for the pupil's high-school curriculum to be academic in character.

Comparison of Responses of Respondents and Nonrespondents

As a by-product of gathering data regarding the population of examinees tested in 1960, some interesting comparisons of respondents and nonrespondents to the mail questionnaire have become available. Table 10-7 presents a comparison of the percentages at 15 levels of academic aptitude of respondents, all nonrespondents, and the 5-per-cent

TABLE 10-4

Per Cent of Examinees in Each Academic-Aptitude Group and Region Who Responded to the 1961 Follow-up Questionnaire

Aptitude Composite C-002 Percentile Rank[a]	U.S. Office of Education Region[c]									
	New England	Mideast	Great Lakes	Plains	Southeast	Southwest	Rocky Mts.	Far West	Alaska & Hawaii	All Regions
	Per Cent Responding									
98-100	85.5	85.5	88.7	91.0	80.6	84.2	88.3	91.5	0.0	86.9
95- 97	79.0	82.5	86.8	86.3	83.7	78.9	87.6	78.9	100.0	83.5
90- 94	82.0	81.2	84.0	83.2	86.9	75.6	77.2	77.9	89.7	81.5
85- 89	81.4	79.6	81.8	82.5	76.9	73.4	73.6	80.7	76.2	79.7
80- 84	73.9	74.6	77.1	79.3	76.9	75.0	75.1	77.0	73.8	76.2
75- 79	70.8	74.3	78.5	77.8	75.3	76.9	70.9	74.3	88.9	75.7
70- 74	73.5	73.5	74.1	76.3	70.6	72.4	72.0	70.6	76.3	73.1
60- 69	69.3	70.1	73.6	72.8	67.0	62.2	68.7	71.2	77.5	70.3
50- 59	66.5	67.4	67.3	69.8	62.9	62.2	63.8	65.4	65.6	66.1
40- 49	62.5	63.9	62.6	59.0	57.4	59.2	49.9	58.9	70.0	60.5
30- 39	60.7	57.8	61.3	55.8	53.4	55.3	60.2	59.9	55.6	57.8
25- 29	55.9	52.5	54.5	46.5	52.8	51.3	48.9	55.2	78.6	52.8
20- 24	49.5	52.7	53.7	51.4	49.4	39.1	52.1	56.5	65.0	51.3
10- 19	44.2	47.8	50.1	44.6	45.1	47.4	37.4	50.1	62.7	47.1
0- 9	31.6	43.2	43.3	38.9	40.5	40.1	43.8	39.1	45.2	40.2
0-100	64.4	64.9	66.2	63.7	57.3	59.7	62.2	63.9	68.2	63.1
Weighted N in Thousands[b]	88.1	266.2	300.6	142.8	259.2	86.2	38.1	110.3	9.1	1300.6
Per Cent of Respondents	6.8	20.5	23.1	11.0	19.9	6.6	2.9	8.5	0.7	100.0

[a] See Appendix B-2 for a description of Composite C-002.

[b] These per cents have been weighted to correct for over- and under-representation of certain types of schools in the Project TALENT samples.

[c] See Appendix N for states in each region.

TABLE 10-5

Per Cent of Males and of Females in Each Academic-Aptitude Group and Region Who Responded to the Follow-Up Questionnaire Mailed in 1961 to All Those Who Took the Project TALENT Tests in the Spring of 1960

Aptitude Composite (C-002) Percentile Rank[a]	U.S. Office of Education Regions																			
	New England		Mideast		Great Lakes		Plains		Southeast		Southwest		Rocky Mts.		Far West		Alaska & Hawaii		All Regions	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	Per Cent Responding																			
98-100	84.3	87.2	86.8	83.5	88.0	89.8	90.9	91.3	80.4	81.1	80.6	92.1	84.7	95.8	87.7	100.0	0.0	0.0	86.1	88.2
95- 97	77.1	81.4	79.7	86.3	85.5	88.4	84.1	90.5	82.0	87.3	79.0	78.5	89.6	85.3	74.3	87.4	100.0	100.0	81.4	86.7
90- 94	76.4	87.5	79.7	83.1	81.9	86.4	82.1	84.8	78.8	84.0	72.3	80.7	77.2	77.2	75.2	82.4	85.9	93.3	79.2	84.4
85- 89	77.9	84.9	79.6	79.5	77.7	86.5	77.4	88.2	74.0	80.8	70.7	76.4	70.9	78.3	77.9	83.9	76.9	75.0	77.0	83.0
80- 84	71.5	76.4	74.6	74.6	73.7	80.2	76.9	81.7	71.6	82.5	76.1	73.8	76.3	73.4	73.7	81.0	83.3	66.7	74.1	78.4
75- 79	70.6	71.1	72.9	75.7	74.0	83.0	77.7	78.0	71.1	79.4	71.9	82.5	73.6	68.2	76.1	72.6	87.5	89.5	73.5	77.9
70- 74	67.0	78.8	71.4	75.3	71.7	76.2	74.4	78.0	68.8	72.6	70.2	74.1	71.0	73.0	66.3	75.0	44.4	100.0	70.3	75.6
60- 69	67.5	70.7	65.9	73.6	70.8	75.8	68.7	76.6	59.9	73.7	61.5	62.9	67.6	69.4	67.8	73.8	75.3	79.3	66.5	73.5
50- 59	60.9	70.5	64.3	70.0	64.5	69.3	67.9	71.5	60.1	65.1	58.6	65.9	58.7	67.3	62.7	67.6	53.8	73.7	62.9	68.7
40- 49	54.6	67.6	62.0	66.2	57.9	66.5	56.1	61.7	52.4	61.7	51.6	64.9	51.9	48.3	54.7	62.1	73.3	68.0	56.1	64.1
30- 39	53.2	65.1	52.6	61.8	58.7	63.3	51.1	59.7	51.6	54.7	47.7	61.8	52.6	67.0	58.8	60.8	56.8	55.2	54.0	60.8
25- 29	55.9	55.9	47.9	56.6	49.8	58.4	45.3	47.7	49.7	53.1	54.6	49.1	51.6	47.8	47.3	63.5	40.0	100.0	49.3	55.7
20- 24	46.7	51.7	46.3	57.1	52.8	54.5	46.9	56.2	45.0	52.9	45.7	33.8	35.1	70.7	52.5	60.0	55.6	72.7	47.7	54.3
10- 19	35.5	50.2	40.9	53.9	46.4	53.9	41.2	48.1	42.6	47.2	42.6	52.7	24.9	50.4	45.8	54.6	57.7	66.7	42.6	51.2
0- 9	32.1	31.0	39.8	46.7	37.7	50.9	35.0	45.5	36.4	45.0	38.4	42.7	45.9	41.7	38.7	39.6	41.5	50.0	37.4	45.4
0-100	60.9	67.3	62.4	67.3	63.0	69.2	60.7	67.0	54.4	60.1	57.3	62.2	60.1	64.1	61.1	66.7	62.8	72.5	60.1	65.9
Weighted N in Thousands[b]	39.5	48.6	127.1	139.1	143.8	156.8	73.5	69.3	126.1	133.1	43.8	42.4	18.4	19.7	35.1	55.3	4.0	5.1	631.4	669.3
Per Cent of Respondents by Sex	6.3	7.3	20.1	20.8	22.8	23.4	11.6	10.3	19.9	19.9	6.9	6.3	2.9	3.0	8.7	8.3	0.6	0.8	100.0	100.0

[a] See Appendix B-2 for a description of Composite C-002.

[b] These per cents have been weighted to correct for over- and under- representation of certain types of schools in the Project TALENT samples.

TABLE 10-6

Percentages of Boys and of Girls Tested in 1960
Who Responded to the 1961 Mail Questionnaire, Arranged by Options They Marked
on Selected Items in the Project TALENT Student Information Blank

SIB Item[a]		Per Cent Responding	
Number	Content	Boys	Girls
137.	Parents native-born or foreign-born		
	C. Both born in U. S.	60.7	66.2
	A, B, D, E. Foreign-born or don't know	57.4	64.5
167.	Number of years in community		
	A-C. 5 or less	53.8	59.8
	D. 5-10	60.3	65.6
	E, F. Over 10 or whole life	61.6	67.4
168.	Type of community in which students resided prior to present residence		
	A. Resided in present community for entire life	62.6	67.6
	B. Suburban area	59.2	65.1
	C. Large city--population, 100,000+	60.6	66.1
	D. Medium-sized city--population, 25,000-100,000	56.5	64.6
	E. Small city--population, 2,500-25,000	58.1	64.1
	F. Farm or village--population, less than 2,500	57.5	63.0
170.	Type of housing		
	A. One-family house	62.6	67.5
	B-F. All others	53.1	60.6
171.	Rent or own home		
	A-E. Rent	52.6	59.5
	F. Own	63.0	68.1
172.	Value of home		
	A, B. Under $10,000	57.7	65.4
	C, D, E. $10,000 or more	64.0	69.5
	F. Renting home	55.9	59.5
220.	Heads of house		
	A. Mother and father	63.0	68.1
	B, C. Mother only or father only	52.2	60.3
	D. Sometimes mother, sometimes father	42.6	58.0
	E, F. Parent and step-parent	52.4	59.4
	G, H, I, J. Relatives, foster parents, or not listed	40.0	46.6
130.	Family breadwinner		
	A, B. Father or other male	61.6	66.8
	C, D. Mother or other female	51.4	60.5
	E, F. Other	45.8	52.2

TABLE 10-6 (continued)

Number	SIB Item[a] Content	Per Cent Responding Boys	Girls
206.	Father's occupation		
	All White Collar	66.4	70.4
	O. Professional	69.8	72.8
	P. Technical	69.1	74.3
	L, M, N. Manager, official, or proprietor	64.3	68.8
	K. Sales personnel	66.8	70.1
	J. Clerical	68.8	71.9
	All Blue Collar	57.9	64.8
	H, I. Skilled, semi-skilled	59.8	65.8
	D, E, F, G. Labor; household, protective, and service workers	55.2	63.0
	All Farm	58.7	65.1
	A. Farm owner, manager	61.8	67.5
	B, C. Farm foreman or worker	46.2	57.5
	Q. Don't know	49.9	57.4
208.	Mother's occupation		
	A. Housewife	61.5	66.9
	All white collar	66.2	70.6
	O, P. Professional and technical	69.9	73.1
	L, M, N. Manager, official, and proprietor	58.2	64.9
	J, K. Clerical and sales	66.8	71.0
	All blue collar	54.7	60.9
	H, I. Skilled, semi-skilled	57.6	60.9
	D, E. Labor or private household	51.6	60.5
	F, G. Protective and service	54.7	61.4
	All farm	49.1	64.7
	B, C. Farm owner, manager, or worker	49.1	64.7
	Q. Don't know	50.2	58.7
91.	High-school curriculum		
	A. General	52.0	60.3
	B. College preparatory	71.2	75.8
	C. Commercial or business	48.1	60.5
	D. Vocational	48.0	54.0
	E. Agriculture	50.3	55.7
	F. Other	50.0	59.0

TABLE 10-6 (continued)

Number	SIB Item[a] Content	Per Cent Responding Boys	Girls
92.	Number of times changed schools since first grade, excluding promotions		
	A. Never	63.5	68.3
	B. Once	61.9	67.8
	C. Twice	58.7	64.9
	D. 3 times	55.2	62.0
	E. 4 times	54.0	60.4
	F. 5 or more times	52.3	58.0
96.	Number of days absent from school, 1959-1960		
	A. 0	65.8	71.1
	B. 1-4	64.0	70.0
	C. 5-9	59.6	64.4
	D. 10-14	54.5	60.9
	E. 15-19	51.3	58.0
	F. 20 or more	44.8	57.2
218.	Father's education		
	J. Doctorate, or professional degree	67.7	69.2
	H, I. Master's degree; plus	68.3	77.4
	G. College graduate	69.3	72.0
	E, F. Some college, vocational or business school	68.4	72.3
	D. High-school graduate	62.6	68.8
	C. Some high school	57.6	63.5
	A, B. No high school	54.3	61.4
	K. Don't know	---	---
219.	Mother's education		
	J. Doctorate, or professional degree	58.2	67.3
	H, I. Master's degree; plus	67.4	74.9
	G. College graduate	71.6	77.7
	E, F. Some college, vocational or business school	69.0	73.4
	D. High-school graduate	62.6	68.6
	C. Some high school	55.3	61.5
	A, B. No high school	53.1	60.0
	K. Don't know		

[a] The wording of the items and options is merely to indicate the content. See Appendix K for the test items themselves.

TABLE 10-7

Weighted Percentage Distributions by Sex and Academic Aptitude (C-002) for Mail Questionnaire Respondents, Total Group Nonrespondents, and Field Study Sample Nonrespondents

Aptitude Composite (percentile categories)[a]	Respondents		Total Nonrespondents		Sample Nonrespondents	
	M	F	M	F	M	F
98-100	3.7	1.9	0.9	0.5	0.8	0.0
95- 97	5.1	3.1	1.8	0.9	1.3	0.7
90- 94	7.4	5.4	3.0	1.9	1.4	1.5
85- 89	7.1	5.6	3.2	2.2	2.9	0.9
80- 84	6.6	5.8	3.5	3.1	3.1	3.1
75- 79	6.1	5.7	3.3	3.1	2.7	3.2
70- 74	5.9	6.1	3.7	3.8	2.9	2.9
60- 69	10.5	11.7	8.0	8.2	8.3	6.7
50- 59	9.6	11.3	8.5	10.0	10.3	8.3
40- 49	8.6	10.6	9.8	11.1	10.7	11.4
30- 39	8.0	10.1	10.2	12.5	10.5	15.5
25- 29	3.7	4.5	6.1	7.3	6.4	6.5
20- 24	3.7	4.4	6.1	7.2	6.3	10.7
10- 19	7.0	7.8	14.3	14.4	15.2	16.1
0- 9	7.1	6.0	17.5	13.9	17.1	12.4
Total	100.1	100.0	99.9	100.1	99.9	99.9
Wt. N (in 100's)[b]	3806	4417	2463	2292	2110	1898

[a] Based on the original 1960 data for all available cases.

[b] Weighted N's are not estimates of population size (due to case loss in processing arising from incomplete data) but they do correct for over- and under- representation of certain types of schools in the Project TALENT sample. Weighted numbers in the special follow-up sample have been multiplied by 20 to make them comparable with the weighted numbers in the group of all nonrespondents.

sample of nonrespondents followed up in the special study. The weighted frequencies in this sample have been multiplied by 20 to make them comparable with the weighted frequencies in the group of all nonrespondents. The fact that they are not the same must be because aptitude composite scores for some of the nonrespondents are missing.

Two predominant facts stand out in the data in Table 10-7. First, the respondents are clearly drawn to a great degree from the higher aptitude levels; second, the 5-per-cent sample of nonrespondents and the entire group of nonrespondents are strikingly similar. It is likely that the 5-per-cent sample of girls is significantly lower in median aptitude than the entire group of girls who did not respond, but the difference is very small.

Table 10-8 shows responses made in the spring of 1960 to seven selected items in the Student Information Blank by examinees who, over a year later, turned out to be respondents or nonrespondents to the 1961 mail questionnaire or members of the 5-per-cent sample of nonrespondents. The first of these, item 92, concerned school transfers made by the pupils. The data show somewhat greater mobility in the nonrespondent group than in the respondent group. This may be merely a reflection of the fact that mail questionnaires have greater difficulty in reaching mobile families.

Responses to item 96 indicate a slight tendency for regularity in school attendance to be associated with responding to the mail questionnaire. Those to item 168 suggest that type of community was not associated with tendency to respond to the mail questionnaire but that long residence in a community was. Again, this may simply be a function of ease of mail delivery.

The tabulations of responses to item 206 show that pupils whose fathers held jobs like workman or laborer tended to respond with lower incidence than those whose fathers held professional or technical jobs. This difference seems to be especially noticeable among the girls. It is also interesting that the percentage of the nonrespondents who reported that they did not know their father's occupation is larger than the percentage of respondents who reported this.

The examinees reported the highest educational levels reached by their parents in items 218 and 219. In general, as the educational level of the parents increases, the incidence of response to the mail questionnaire increases. The last of the items for which data are shown in Table 10-8 is number 220. Striking differences are shown between the percentages of respondents and nonrespondents living in homes where both the father and mother are present. The data indicate a much greater incidence of response to the mail questionnaire in homes of this type. In seeking variables to predict whether pupils will become respondents or nonrespondents, this variable should certainly be considered along with academic aptitude, sex, geographic region of residence, and family mobility.

TABLE 10-8

Weighted Percentage Distributions by Sex for Selected SIB Items for Mail Questionnaire Respondents, Total Group Nonrespondents, and Field Study Sample Nonrespondents[a]

Item and Options	Respondents		Total Nonrespondents		Sample Nonrespondents	
	M	F	M	F	M	F
Item 92:						
Number of times changed schools since first grade						
Never	42.3	43.0	36.7	38.5	39.6	35.7
Once	23.2	25.0	22.1	22.6	21.4	23.5
Twice	10.9	10.3	11.6	10.7	10.3	10.8
Three times	8.6	8.1	10.2	9.7	10.4	9.6
Four times	5.8	5.4	7.4	6.9	6.8	8.4
Five or more times	9.0	8.2	11.9	11.5	11.5	11.9
Total	99.8	100.0	99.9	99.9	100.0	99.9
Wt. N (in 100's)[b]	3779	4381	2440	2273	2091	1874
No response (Wt. N in 100's)	(28)	(35)	(23)	(18)	(18)	(24)
Item 96:						
Number of days absent from school in the last school year						
None	11.6	10.0	9.6	7.9	11.4	6.7
1 - 4 days	40.4	41.2	36.0	33.5	34.5	28.4
5 - 9 days	26.4	27.2	26.5	28.9	24.6	31.4
10 - 14 days	12.0	11.7	13.9	14.8	13.4	17.1
15 - 19 days	5.3	5.5	6.9	8.2	8.8	9.0
20 or more days	4.3	4.3	7.0	6.7	7.3	7.4
Total	100.0	99.9	99.9	100.0	100.0	100.0
Wt. N (in 100's)[b]	3761	4358	2416	2253	2078	1852
No response (Wt. N in 100's)	(46)	(40)	(47)	(39)	(32)	(47)

[a] Based on the original 1960 data for all available cases.

[b] Weighted N's are not estimates of population size due to case loss in processing arising from incomplete data.

TABLE 10-8 (continued)

Item and Options	Respondents		Total Nonrespondents		Sample Nonrespondents	
	M	F	M	F	M	F
Item 168:						
Description of community lived in before moving to present community						
Lived in this community all my life	44.4	45.4	39.7	42.7	40.9	42.0
Suburban area around a city	10.7	11.0	11.4	11.3	10.1	12.8
Large city (100,000 or more)	13.4	13.4	14.3	12.7	15.1	11.9
Medium-sized city (25,000 to 100,000)	7.0	7.7	8.3	8.0	9.4	7.6
Small city or town (2,500 to 25,000)	11.5	11.6	12.7	12.7	11.8	11.6
Farm or village (less than 2,500)	13.1	11.0	13.6	12.6	12.7	14.1
Total	100.1	100.1	100.0	100.0	100.0	100.0
Wt. N (in 100's)[b]	3718	4316	2383	2219	2041	1823
No response (Wt. N in 100's)	(89)	(100)	(80)	(72)	(68)	(76)
Item 206:						
Description of father's work (or male head of the household)						
Farm or ranch owner and/or manager	10.4	8.2	9.1	7.9	8.9	8.8
Farm or ranch foreman	0.7	0.5	0.9	0.5	0.8	0.8
Farm or ranch worker	1.5	1.3	2.3	2.5	1.8	3.8
Workman or laborer	16.4	14.7	17.8	19.0	20.4	16.1
Private household worker	0.1	0.1	0.4	0.2	0.6	0.0
Protective worker	1.8	1.5	1.7	1.8	0.9	1.7
Service worker	1.1	1.1	1.5	1.1	0.6	0.1
Semi-skilled worker	8.3	6.7	8.1	7.0	8.4	6.3
Skilled worker or foreman	20.3	19.1	20.0	20.7	19.7	21.8
Clerical worker	3.1	3.1	2.3	2.3	2.3	3.3
Salesman	4.5	4.9	3.9	3.7	4.4	4.0
Manager	7.2	8.2	6.5	6.2	5.9	5.1
Official	2.4	2.7	2.4	1.7	3.0	2.7
Proprietor or owner	7.8	9.7	8.1	8.7	9.0	8.1
Professional	5.7	8.0	4.7	4.9	4.9	3.4
Technical	2.9	3.8	2.3	2.2	1.6	2.1
Don't know	5.9	6.2	8.0	9.7	6.8	12.1
Total	100.1	99.8	100.0	100.1	100.0	100.2
Wt. N (in 100's)[b]	3660	4226	2325	2166	1991	1798
No response (Wt. N in 100's)	(147)	(190)	(138)	(125)	(119)	(101)

TABLE 10-8 (continued)

Item and Options	Respondents		Total Nonrespondents		Sample Nonrespondents	
	M	F	M	F	M	F
Item 218:						
Highest level of education reached by father						
None, or some grade school	7.0	6.0	8.3	8.7	7.8	9.1
Completed grade school	17.1	14.6	16.7	17.2	13.7	17.0
Some high school, but did not graduate	21.4	20.1	22.1	23.9	25.1	25.8
Graduated from high school	23.6	22.4	22.4	19.4	22.5	19.2
Vocational or business school after high school	5.7	6.4	4.3	4.6	3.3	3.0
Some junior or regular college, but did not graduate	6.5	8.3	5.5	5.4	5.7	4.6
Graduated from a regular 4-year college	6.4	7.8	5.4	4.9	5.6	4.6
Master's degree	1.5	2.2	1.2	0.9	1.6	1.6
Some work toward doctorate or professional degree	0.9	1.5	1.0	0.8	0.3	1.2
Completed doctorate or professional degree	2.9	4.2	2.6	3.1	2.4	2.6
Don't know	6.9	6.7	10.6	11.2	12.0	11.3
Total	99.9	100.2	100.1	100.1	100.0	100.0
Wt. N (in 100's)[b]	3661	4259	2324	2188	1980	1789
No response (Wt. N in 100's)	(146)	(157)	(139)	(104)	(130)	(110)
Item 219:						
Highest level of education reached by mother						
None, or some grade school	3.6	3.4	4.6	5.5	2.5	5.5
Completed grade school	13.1	11.5	13.1	14.8	11.1	14.2
Some high school, but did not graduate	20.5	21.3	23.0	28.2	26.5	28.1
Graduated from high school	35.4	31.4	33.3	27.2	30.9	29.0
Vocational or business school after high school	6.6	9.8	5.5	6.4	6.9	7.0
Some junior or regular college, but did not graduate	5.8	7.6	4.6	4.7	4.4	3.8
Graduated from a regular 4-year college	6.7	7.6	5.0	3.6	5.6	2.4
Master's degree	1.0	1.3	1.0	0.6	0.5	0.5
Some work toward doctorate or professional degree	0.7	0.8	0.5	0.5	0.3	0.5
Completed doctorate or professional degree	1.0	1.4	1.1	1.2	1.2	1.2
Don't know	5.7	3.7	8.4	6.6	10.1	7.9
Total	100.1	99.8	100.1	99.3	100.0	100.1
Wt. N (in 100's)[b]	3685	4316	2344	2207	2009	1833
No response (Wt. N in 100's)	(122)	(100)	(119)	(84)	(100)	(66)

TABLE 10-8 (continued)

Item and Options	Respondents		Total Nonrespondents		Sample Nonrespondents	
	M	F	M	F	M	F
Item 220:						
With whom are you now living; that is, who are the heads of the house?						
Mother and father	83.8	84.3	76.2	75.9	77.9	77.2
Mother only	7.4	7.5	9.4	9.9	8.0	8.4
Father only	1.5	1.2	2.4	1.6	1.6	1.4
Sometimes with mother, sometimes father	0.4	0.2	0.6	0.4	0.4	0.7
Mother and stepfather	3.1	3.3	4.2	4.5	4.2	3.6
Father and stepmother	1.0	0.9	1.3	1.3	2.1	1.4
Grandparents, aunt, uncle, or cousins	1.6	1.2	2.9	2.5	2.7	3.0
Brother or sister	0.3	0.3	0.9	1.0	0.6	0.7
Foster parents (not relatives)	0.2	0.2	0.5	0.7	0.9	1.1
Someone not listed above	0.8	0.8	1.6	2.1	1.7	2.5
Total	100.1	99.9	100.0	99.9	100.1	100.0
Wt. N (in 100's)[b/]	3718	4356	2367	2238	2030	1838
No response (Wt. N in 100's)	(89)	(60)	(96)	(53)	(80)	(61)

Table 10-9 has been prepared from data in Tables 10-1 and 10-2 to highlight differences between responses of the group that responded to the mail questionnaire and the group included in a special follow-up study of 5 per cent of those who did not respond to the mail questionnaire. Because of the format of the special follow-up questionnaire, the data were properly comparable for only a few questions.

In the first comparison (Q1 vs. F1), the percentages of twelfth-grade pupils tested in March and April of 1960 who did not graduate in June of that year were about four times as great in the nonrespondent as in the respondent group.

The second comparison (Q5 vs. F3), indicates that the percentages of boys and of girls in the respondent group who entered four-year colleges were nearly twice those in the nonrespondent group. However, the percentage of nonrespondent boys who entered two-year colleges is greater than that of respondent boys. The percentages of nonrespondent girls who entered schools of nursing, business schools, and trade schools were greater than those of respondent girls.

The third comparison (Q47 vs. F5), shows that much larger percentages of nonrespondents who entered college dropped out during or at the end of the freshman year than of respondents who entered college. The data indicate that over a third of all nonrespondent boys and over one-half of all nonrespondent girls who entered college fell in this category. The reasons given for dropping out of college are shown in the fourth comparison (Q47 vs. F6). Almost 35 per cent of the nonrespondent girls reported that they dropped out because they got married. Only 13 per cent of the respondent girls dropped out for this reason. Another striking difference between the responses of respondent and nonrespondent girls concerns the percentages (7.1 and 26.5) who dropped out to take a good job.

Among the boys, a smaller percentage of the respondents (5.9) dropped out to take a good job than of the nonrespondents (13.9), but a larger percentage of respondents (21.6) than nonrespondents (12.0) dropped out because of financial difficulties. Failure in course work was reported by both respondent and nonrespondent boys to be the most frequent reason for their dropping out.

The fifth comparison (Q44 vs. F4) indicates that the percentages of respondents majoring in mathematics and the sciences were larger than those of nonrespondents. Conversely, the percentages of nonrespondents majoring in business and commercial subjects are larger than those of respondents. These results are probably associated with the fact that the academic aptitude and motivation of respondents were, on the average, greater than those of nonrespondents.

The sixth comparison (Q31 vs. F10) deals with percentages of boys and girls who were members of various branches of the armed forces. The weighted number of girls who were members was only two, so the comparison reveals very little about the girls except that they rarely enter the groups listed. Nonrespondent boys tended to enter the Army Reserve and

TABLE 10-9

A Comparison of Selected Items from Tables 10-1 and 10-2
for Mail Respondents and Nonrespondents
(Special Follow-Up Study Sample of 1,341 Cases)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]					
	Respondents			Nonrespondents		
	Boys	Girls	All	Boys	Girls	All
Q1 vs. F1						
Did you graduate from high school?						
Yes	99.0	99.3	99.1	95.8	96.5	96.1
No	1.0	0.7	0.9	4.2	3.5	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
No Response (Wt.N in 100's)	(31)	(21)	(52)	(48)	(35)	(83)
Q5 vs. F3						
What kind of school have you attended since high school?						
Four-year College or University	46.1	34.4	39.8	24.6	14.0	19.7
Two-year College	8.8	6.7	7.7	9.2	4.9	7.3
Subtotal of four-year or two-year college	54.9	41.1	47.5	33.8	18.9	27.0
Technical School or Institute	3.4	1.1	2.2	0.9	0.4	0.7
School of Nursing (3-yr.)	0.0	3.6	1.9	0.0	3.9	1.8
School of Practical Nursing	0.0	0.7	0.4	0.1	0.2	0.1
Business School	2.0	7.8	5.1	2.0	8.9	5.1
Trade School	2.7	2.2	2.4	4.2	4.8	4.5
Armed Forces School	7.7	0.2	3.7	4.8	0.5	2.9
Other School	2.8	3.6	3.3	0.4	1.3	0.8
No school or no response	26.4	39.7	33.6	53.7	61.1	57.0
Total	99.9	100.0	100.1	99.9	100.0	99.9

[a] For weighted frequencies see the corresponding question in Tables 10-1 and 10-2.

TABLE 10-9 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]					
	Respondents			Nonrespondents		
	Boys	Girls	All	Boys	Girls	All
Q47 vs. F5						
Are you still attending College?						
Yes	85.8	83.4	84.7	64.9	44.6	58.5
No	14.2	16.6	15.3	35.1	55.4	41.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
No Response (Wt.N in 100's)	(81)	(67)	(148)	(31)	(11)	(42)
Q47 vs. F6						
Reason for dropping out of college						
Offered a good job	5.9	7.1	6.5	13.9	26.5	19.3
Became homesick	0.7	1.0	0.8	0.0	0.0	0.0
Didn't enjoy social life	0.7	0.6	0.7	1.2	1.6	1.4
Got married	2.3	13.0	7.7	3.3	34.8	16.9
College work was boring	5.6	2.6	4.1	0.0	0.0	0.0
Had to work too hard	1.3	1.3	1.3	2.1	0.0	1.2
Afraid of failure	6.6	2.9	4.7	0.0	0.0	0.0
Failed	23.9	9.4	16.6	20.5	3.2	13.0
Had financial difficulties	21.6	15.3	18.4	12.0	11.1	11.6
Became ill	3.0	6.2	4.6	0.9	5.9	3.1
Emergency in family	2.0	2.3	2.1	0.9	0.0	0.5
Other reasons	26.6	38.3	32.5	45.2	17.0	33.0
Total	100.2	100.0	100.0	100.0	100.1	100.0
No Response (Wt.N in 100's)	(81)	(67)	(148)			
Q44 vs. F4						
College Major						
Math	6.2	3.8	5.1	3.5	0.5	2.5
Physical Science	7.4	2.0	4.9	2.8	0.9	2.2
Biological Science	7.6	6.2	7.0	0.3	0.9	0.5
Social Studies	8.0	6.6	7.4	6.7	9.6	7.6
English Literature	3.1	8.8	5.7	6.7	3.7	5.7
Foreign Language	1.1	4.3	2.5	0.3	0.0	0.2
Fine Arts	1.9	3.9	2.8	0.6	3.6	1.6
Music	1.4	2.6	1.9	1.2	4.0	2.1
Psychology	2.7	3.9	3.2	0.7	3.3	1.6
Philosophy	0.9	0.3	0.6	0.0	0.0	0.0

TABLE 10-9 (continued)

Item	Percentages Based on Weighted Frequencies of Those Responding[a]					
	Respondents			Nonrespondents		
	Boys	Girls	All	Boys	Girls	All
Q44 vs. F4 (continued)						
Religion	1.1	0.9	1.0	0.4	1.9	0.9
Education	5.4	24.7	14.3	4.7	18.5	9.2
Engineering	17.7	0.2	9.6	12.9	0.0	8.7
Business-Commercial	18.5	10.5	14.8	27.7	27.1	27.6
Home Economics	0.1	4.7	2.2	0.0	0.0	0.0
Agriculture and Forestry	3.6	0.1	2.0	3.2	0.0	2.1
Other	13.4	16.6	14.9	28.2	26.0	27.5
Total	100.1	100.1	99.9	99.9	100.0	100.0
Noncollege ------	(Not included in base)					
Q31 vs. F10						
Of which of the following are you a member?						
Air Force Reserve	1.0	0.0	1.0	0.0	0.0	0.0
Army Reserve	5.5	0.0	5.5	20.8	0.0	20.8
Navy Reserve	7.0	0.0	6.9	0.0	0.0	0.0
Marine Corps Reserve	2.2	0.0	2.2	3.9	0.0	3.9
Coast Guard Reserve	0.7	0.0	0.7	0.0	0.0	0.0
Air National Guard Reserve	0.7	0.0	0.7	0.0	0.0	0.0
Army National Guard	8.0	0.0	8.0	61.0	0.0	61.0
Air ROTC	30.7	50.0	30.8	0.0	0.0	0.0
Army ROTC	41.3	50.0	41.4	14.3	0.0	14.3
Naval ROTC	2.9	0.0	2.9	0.0	0.0	0.0
Total	100.0	100.0	100.1	100.0	0.0	100.0
No Response (Wt.N)	(3044)	(4415)	(7459)	(2996)	(2600)	(5596)
Q26 vs. F15						
Are you married?						
Yes	5.1	14.5	10.2	19.2	50.9	33.9
No	94.9	85.5	89.8	80.8	49.1	66.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
No Response (Wt.N)	(55)	(40)	(95)	(98)	(16)	(114)

the Army National Guard whereas respondent boys tended to enter the Air ROTC and the Army ROTC. The differences are probably associated with the incidence of college attendance among nonrespondents (33.8) and respondents (54.9), as given in the second comparison in Table 10-9.

The seventh comparison shows that the percentages of boys and of girls who were married about a year after they left grade 12 were about three times as great among nonrespondents as among respondents. That married people would tend to fail to respond to mail questionnaires with greater incidence than unmarried people is to be expected; their interests in personal and family problems are great, and school-connected matters no doubt seem remote to them.

Summary

Detailed responses to the 1961 mail questionnaire and to a special follow-up questionnaire have been presented. The diversity of the material and its detail make a summary of it difficult. Let us consider first the members of the group tested in grade 12 in 1960 who entered college. Our data indicate that about 42 per cent of the high-school graduates did enter a recognized two-year or four-year college within a year after leaving high school. Of these, about 22 per cent dropped out during or at the end of the freshman year. The great majority of students dropped out to take jobs or because of financial difficulties. These two categories accounted for about 28 per cent of the dropouts. Among girls, marriage accounted for 23 per cent of the dropouts; among boys, 22 per cent reported that they had failed in their academic work. Other causes of dropout were of smaller consequence.

Choices of major fields of study show that business and commercial subjects were popular with boys and girls. Engineering was second most popular with the boys; education was by far the most popular major with the girls.

Only a negligible percentage of the girls entered active military duty but (as shown in Table 10-3) about 20 per cent of the boys did so. Finally, the data show that a far larger percentage of girls (28.0) than boys (11.3) were married a year after they had left grade 12.

Conclusions based on data provided only by the mail questionnaire cannot safely be generalized to the entire TALENT sample because of the somewhat selected nature of the respondent group with respect to academic aptitude and family characteristics, such as socio-economic status. For what they may be worth, data for the respondents alone have been presented in Table 10-1. Some of their highlights follow.

Only about 21 per cent of the boys and 29 per cent of the girls did not hold at least one full-time job in the year after they left grade 12. About 44 per cent of them found their first full-time job before they left high school and another 12 per cent found it in a week after leaving school. About 7 per cent of them took more than 6 months

to find it. Public employment agencies do not seem to serve many of the young people. It is interesting that more girls than boys (some 60 per cent) were very well satisfied with the job they held as of May 1961, but fewer girls than boys intended to make a career of this job. It is probable that many boys and girls at this stage of their careers were holding temporary jobs, the girls until marriage comes along, and the boys until they have completed their education or have decided on a likely career. The most important aspect of a job or career for both boys and girls was reported as personal interest in the work, followed by job security, and (especially for the boys) future salary and opportunity for promotion.

Of the respondents who entered college, about 37 per cent continued to live at home and another 27 per cent attended a college within 100 miles of their homes. Their college marks during the freshman year averaged a C+. The median cost of tuition fees and books was about $450 and the median cost of living expenses was about $510. The average freshman spends about 15-20 hours per week in class and claims that he spends 20 hours per week studying outside of class. The funds are supplied largely by the students' families and their own earnings and savings, but about 26 per cent of the students reported receiving funds from grants and scholarships.

Respondents to the mail questionnaire tended to have greater academic aptitude than nonrespondents and to come from families at slightly higher socio-economic levels.

Chapter 11

AMERICAN YOUTH ENTERS COLLEGE

As noted in Chapter 10,[1] about 42 per cent of the high-school graduates of 1960 represented by the Project TALENT sample entered a two-year or four-year college within a year of their graduation. Approximately 49 per cent of the boys and 35 per cent of the girls made up this group. As a result, 57 per cent of the group of college freshmen were boys and 43 per cent were girls. About 79 per cent of those who entered college attended a four-year institution and about 21 per cent, a junior college.

These data are in reasonably close agreement with those obtained in a study made by the Departments of Agriculture and Commerce.[2] High-school seniors surveyed in October 1959 were followed up to determine whether they entered college in the spring or fall of 1960. Of the high-school graduates, 41.6 per cent did so, -- 45.9 per cent of the boys and 37.7 per cent of the girls.

It has been found that fairly large percentages of high-school graduates who do not enter college immediately do so eventually. For example, a study made by the National Science Foundation showed that about 25 per cent of boys and 6 per cent of girls who do not enter college immediately do so later on.

College Attendance by Academic-Aptitude Level

Table 11-1 shows the percentage at each of 15 academic-aptitude levels of respondents to the 1961 mail questionnaire who entered college within one year of their graduation from high school. Of those in the top 1 per cent in aptitude, about 97 per cent entered college; 94.3 per cent of the boys and 93.6 per cent of the girls in this group entered four-year colleges. The percentages of college attendance declined with decrease in aptitude level. Among respondents in the lowest 10 per cent of the aptitude distribution, only about 15 per cent of the

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[1] The basic data are shown in Table 10-3.

[2] U.S. Bureau of the Census. Factors Related to College Attendance of Farm and Nonfarm High-School Graduates. Series P-27, No. 32. Washington: the Bureau, June 1962.

TABLE 11-1

Percentage of Respondents to the 1961 Mail Questionnaire Who Entered College Within a Year After Their Graduation From High School, by Level of Academic Aptitude, Type of College, and Sex

Aptitude Percentile Rank[a]	Type of College and Sex								
	All Colleges			Four-Year Colleges			Junior College		
	Both Sexes	M	F	Both Sexes	M	F	Both Sexes	M	
	Percentage of High-School Graduates								
99.0-99.9	96.9	97.0	96.6	94.3	94.8	93.6	2.6	2.2	
98.0-98.9	94.9	95.5	94.0	91.2	92.3	89.4	3.7	3.2	
95.0-97.9	91.8	93.6	89.4	87.7	89.8	84.8	4.1	3.8	
90.0-94.9	86.1	88.8	82.7	79.7	81.2	77.8	6.4	7.6	
85.0-89.9	80.5	85.6	75.0	72.1	75.5	68.4	8.4	10.1	
80.0-84.9	74.5	80.1	68.9	64.3	68.7	59.9	10.2	11.4	
75.0-79.9	68.9	76.4	62.0	58.7	64.2	53.6	10.2	12.2	
70.0-74.9	62.9	69.5	57.4	52.6	56.3	49.5	10.3	13.2	
60.0-69.9	53.5	62.2	46.9	42.5	48.4	38.0	11.0	13.8	
50.0-59.9	44.7	54.6	37.5	34.5	41.7	29.2	10.2	12.9	
40.0-49.9	38.0	46.9	31.7	27.6	33.8	23.3	10.4	13.1	
30.0-39.9	29.1	35.9	24.4	20.5	25.6	16.9	8.6	10.3	
20.0-29.9	24.9	30.8	20.8	16.4	19.6	14.2	8.6	11.2	
10.0-19.9	19.2	22.4	16.6	12.4	13.8	11.2	6.8	8.6	
0.0- 9.0	14.6	16.8	12.4	10.3	12.1	8.4	4.3	4.7	
Weighted N[b] (in Hundreds)	4,162	2,234	1,928	3,454	1,844	1,610	708	390	

[a] General Academic Aptitude Composite (C-002). The percentile ranks are those of all twelfth-grade pupils tested in the Spring of 1960.

[b] High-school graduates who entered college.

boys and 17 per cent of the girls entered college. It is interesting to note that approximately two-thirds of them entered four-year colleges. These data are illustrated in Figure 11-1.

It may come as a surprise to many educators and laymen to find that such large percentages of boys and of girls in the lowest tenth of the distribution of academic aptitude among twelfth-grade pupils entered college, especially four-year colleges.

Dropouts From College During the Freshman Year

Data in Table 11-2 indicate that the percentage of college freshmen who dropped out during that year increased as academic-aptitude level decreased. Although the percentage of freshmen who dropped out is not given in Table 11-2 for respondents in the lowest tenth of the aptitude distribution, the data indicate that it is undoubtedly greater than 30. This figure may be compared with the percentages of 3.8 and 4.4 for boys and for girls, respectively, who were in the top 2 per cent in the aptitude distribution and who dropped out of college during the freshman year. These data are also given in Table 11-2.

Differences in dropout rate between boys and girls or between four-year and two-year colleges were not so great as had been expected. In general, there was very little difference in the dropout rates among the boys and among the girls in the respondent group. In the group of boys and girls who did not respond to the 1961 mail questionnaire, however, there was a marked difference in the dropout rate for boys and for girls. As shown in item F5 of Table 10-2 (page 10-41), about 35 per cent of the boys and 55 per cent of the girls dropped out during the freshman year. As a result, the best estimates of the dropout rates from college for all of the Project TALENT twelfth-grade group who entered college in 1960-1961 are 20.8 per cent for boys and 24.4 per cent for girls (Table 10-3, page 10-50).

A comparison of the percentages of dropouts in four-year and two-year colleges indicates that the former retained about 3 per cent more of their freshmen than the latter. This difference increased among students in the upper quarter of the aptitude distribution; in fact, among students in the top 2 per cent of this distribution, 3.8 per cent dropped out in four-year colleges and 9.6 per cent dropped out in two-year colleges.

Table 11-3 shows the percentages of boys and of girls, and of the sexes combined, who graduated from high school, entered college, and were still enrolled a year after their graduation from high school. Because the large group of high-school graduates who did not enter college is included in the denominator of the ratio used in computing each percentage, these data look very different from those shown in Table 11-2. The relationships between aptitude level and entrance to college and aptitude level and tendency to remain in college lead to striking gradients in the percentages of boys and of girls at different aptitude levels who were still enrolled in college one year after

FIGURE 11-1

Relationship Between Academic Aptitude and College Attendance of Male and Female Twelfth-Grade Respondents to the Follow-up Questionnaire

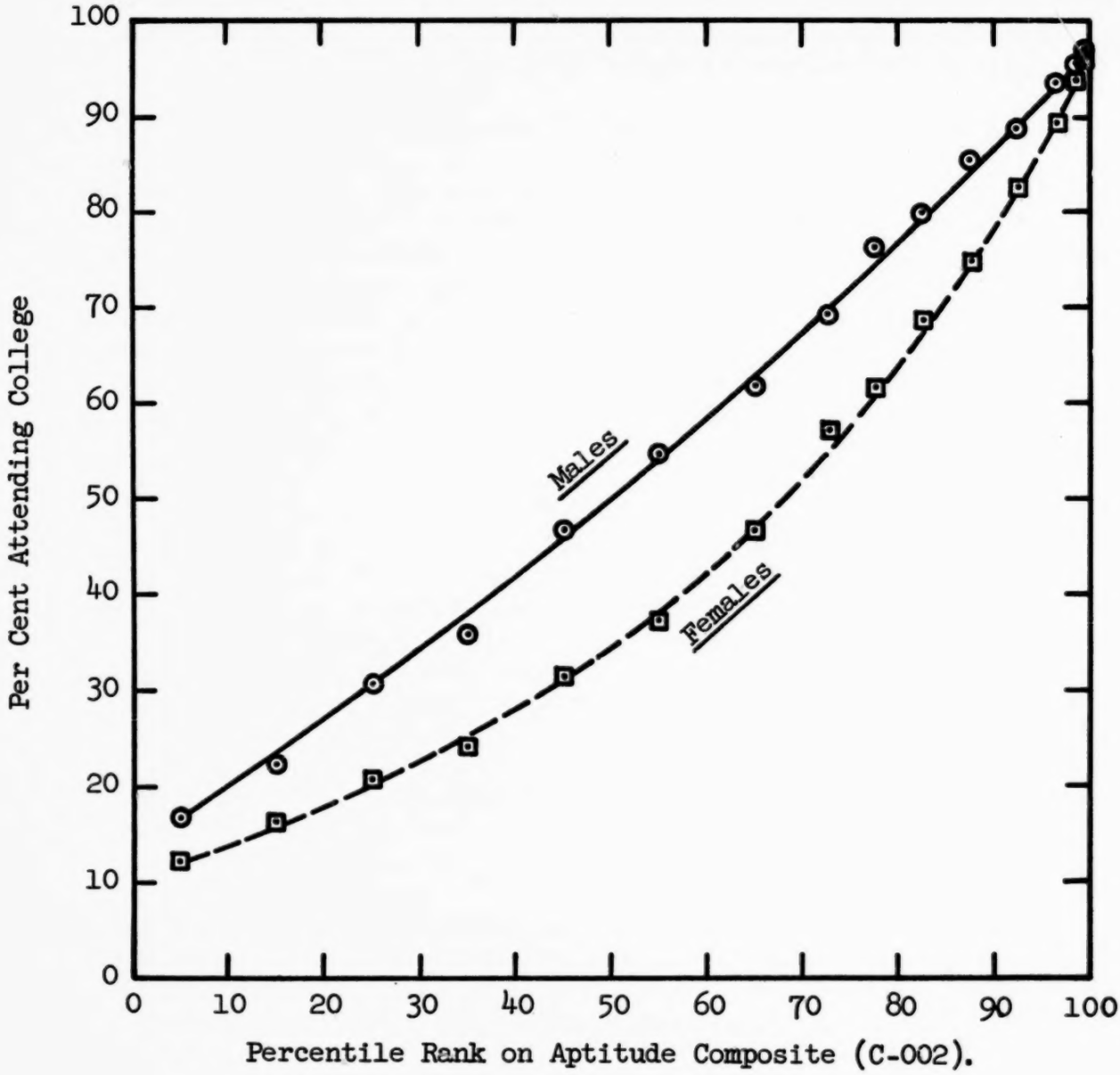


TABLE 11-2

Percentages of Respondents to the 1961 Mail Questionnaire
Who Entered College But Dropped Out by the End of the Freshman Year

Aptitude Percentile Rank[a]	Type of College and Sex								
	All Colleges			Four-Year Colleges			Two-Year Colleges		
	Both Sexes	M	F	Both Sexes	M	F	Both Sexes	M	F
98.0-99.9	4.0	3.8	4.4	3.8	3.6	4.2	9.6	11.3	7.7
95.0-97.9	6.3	6.2	6.6	6.1	5.8	6.4	11.6	13.8	9.1
90.0-94.9	7.6	6.2	9.3	7.2	5.9	8.7	12.8	9.5	18.6
85.0-89.9	10.9	10.7	11.2	10.0	10.6	9.1	18.9	11.2	31.8
80.0-84.9	12.2	12.1	12.3	12.0	12.5	11.5	13.4	10.0	17.6
75.0-79.9	13.1	12.5	13.8	11.6	11.4	11.9	21.3	18.6	25.0
70.0-74.9	15.3	14.7	15.9	14.5	13.5	15.4	19.4	19.7	19.0
60.0-69.9	18.0	16.7	19.3	17.4	16.4	18.4	20.1	17.9	22.8
50.0-59.9	20.7	18.5	22.9	19.8	18.6	21.0	23.6	18.3	29.6
40.0-49.9	23.3	22.1	24.5	22.8	21.9	23.7	24.6	22.7	26.6
25.0-39.9	26.2	24.5	27.9	26.0	25.6	26.5	26.5	22.1	30.9
0.0-24.9	28.4	29.1	27.7	28.5	29.5	27.6	28.2	28.4	28.0
Weighted N[b] (in Hundreds)	3,522	1,915	1,607	2,968	1,599	1,369	554	316	238

[a] Academic Aptitude Composite (C-002).

[b] High-school graduates who entered college.

TABLE 11-3

Percentage of High-School Graduates Who Responded to the 1961 Mail Questionnaire Who Were in College One Year After Graduation from High School, by Level of Academic Aptitude and Sex

Aptitude Percentile Rank[a]	Both Sexes	Males	Females
98.0-99.9	92.4	92.6	91.0
95.0-97.9	86.0	87.8	83.5
90.0-94.9	79.6	83.3	75.0
85.0-89.9	71.7	76.4	66.6
80.0-84.9	65.4	70.4	60.4
75.0-79.9	59.9	66.9	53.4
70.0-74.9	53.3	59.3	48.3
60.0-69.9	43.9	51.8	37.8
50.0-59.9	35.4	44.5	28.9
40.0-49.9	29.1	36.4	23.9
25.0-39.9	20.0	26.5	16.8
0.0-24.9	13.5	15.7	11.7

[a] General Academic Aptitude Composite (C-002).

graduation. In the top 2 per cent of the aptitude distribution, 92.6 per cent of the boys and 91.0 per cent of the girls were still enrolled, while in the bottom quarter of the distribution only 15.7 per cent of the boys and 11.7 per cent of the girls were still enrolled.

A discussion of reasons for dropping out of college was presented on page 10-57. The basic data were shown in item C-7 of Table 10-3 (pages 10-50 to 10-51).

Selectivity of College Freshmen in Terms of Academic Aptitude

That college freshmen are selected to a considerable extent on the basis of academic aptitude is shown by the data in Table 11-4. This table shows the percentile ranks of certain raw scores on the General Academic Aptitude Composite (C-002) in distributions of all high-school seniors tested by Project TALENT in the spring of 1960 and in distributions of three groups of college freshmen. For example, raw scores of 542 to 571 correspond to percentile ranks of 50-59 among all twelfth-grade pupils, of 28-37 among all respondents to the 1961 mail questionnaire who entered college within a year after graduation from high school, of 23-32 among those respondents who entered four-year colleges, and of 46-58 among those respondents who entered two-year colleges. Another way of showing the differences in aptitude among these groups is to note that the median raw score among the high-school seniors was about 542; among all respondents who entered college, it was about 609; among those respondents who entered four-year colleges, it was about 622; and among those respondents who entered two-year colleges, it was about 550. The data indicate that freshmen in two-year colleges are much like high-school seniors with respect to their distribution of academic aptitude. This fact should be kept in mind when curricula and teaching methods are planned for junior colleges. The selection of textbooks should also be influenced by this finding.

It should be noted that junior colleges or community colleges may enroll freshmen having the same median level of general academic aptitude as high-school seniors, but who may, nevertheless, represent a highly selected group with respect to mechanical aptitude, technical aptitude, or some other specialized aptitude only loosely correlated with general academic aptitude. The latter is heavily weighted with verbal and verbal-reasoning abilities.

Differences Between Respondents to 1961 Mail Questionnaire Who Entered College and Who Did not Enter College

Table 11-5 shows the extent to which respondents to the 1961 mail questionnaire who entered college or who did not enter college within one year of their graduation from high school differed with respect to academic aptitude. A glance at the table reveals that the majority of these who entered college were in the upper half of the aptitude

TABLE 11-4

Approximate Equivalent Academic Aptitude Percentile Ranks for High-School Seniors and College Freshmen

Raw Score[a]	High-School Seniors	College Freshmen		
		All Colleges	Four-Year Colleges	Junior Colleges
753 and above	98-99	96-99	95-99	99-99
722-752	95-97	90-96	88-95	98-99
692-721	90-94	81-90	77-88	94-98
666-691	85-89	72-81	68-77	89-94
645-665	80-84	63-72	59-68	83-89
625-644	75-79	56-63	51-59	77-83
607-624	70-74	49-56	44-51	71-77
572-606	60-69	37-49	32-44	58-71
542-571	50-59	28-37	23-32	46-58
509-541	40-49	19-28	16-23	34-46
456-508	25-39	10-19	8-16	18-34
455 and below	1-24	0-10	0- 8	0-18

[a] General Academic Aptitude Composite (C-002).

TABLE 11-5

Weighted Frequencies at Designated Aptitude Levels of Respondents to the 1961 Mail Questionnaire Who Entered College and Who Did Not Enter College

Aptitude Percentile Rank[a]	Entered College (in Hundreds)			Did Not Enter College[b] (in Hundreds)		
	Male	Female	All	Male	Female	All
90.0-99.9	567	398	965	49	59	108
80.0-89.9	433	361	794	89	142	231
70.0-79.9	332	309	641	123	209	332
60.0-69.9	248	243	491	151	276	427
50.0-59.9	199	187	386	165	312	477
40.0-49.9	154	148	302	174	319	493
30.0-39.9	110	109	219	196	338	534
20.0-29.9	86	82	168	196	311	507
10.0-19.9	60	58	118	207	289	496
0.0- 9.9	45	33	78	223	232	455
	2,234	1,928	4,162	1,573	2,487	4,060

[a] General Academic Aptitude Composite (C-002). The percentile ranks are based on all twelfth-grade pupils tested in the spring of 1960.

[b] Within one year of graduation from high school.

distributions and that, conversely, the majority of these who did not enter college were in the lower half of those distributions. The fact that the respondents were higher with respect to academic aptitude than the entire group of twelfth-grade pupils is also reflected in the data.

Differences between respondents who entered college and those who did not with respect to their educational backgrounds and plans, their families, and their aspirations are shown in Table 11-6. The data consist of percentages and medians. These are based on responses made to certain options in selected items from the Student Information Blank.

Educational Background

Data in Table 11-6 show that boys and girls who entered college tended to have been enrolled in a college-preparatory curriculum (item 91), to have obtained better grades in high school than those who did not enter college (item 113), and to have discussed college plans with teachers, principals, and counselors more frequently than those who did not enter college.

The college-bound group was absent less frequently from school and spent more time per week studying than the others. For example, the median boy who entered college reported that he spent an average of 10.5 hours per week studying whereas the median boy who did not enter college reported that he spent only 6.9 hours per week studying (item 97).

Educational Plans

Among respondents who later entered college, over 90 per cent had planned to do so. About 89 per cent of the boys and 87 per cent of the girls were willing to take a loan to help with college expenses. Among respondents who did not enter college, only about 51 per cent of the boys and 53 per cent of the girls expressed this willingness.

It may be a little troublesome to some educators to find that as many as 25.4 per cent of the boys and 19.0 per cent of the girls who were enrolled in a college-preparatory course in high school did not enter college within a year after they graduated from high school.

Question 337 shows that a much larger percentage of the parents of respondents who entered college wanted them to go to college than of respondents who did not enter college. The friends of those who entered college were planning for a great deal more education than the friends of those who did not enter college.

Family Characteristics

Respondents who entered college tended to be members of more highly educated and more affluent families than respondents who did not enter college. This is shown in Table 11-6 by responses to items 173, 174, 206, 218, 219, and to items 171, 172, and 225. For example, about 22 per cent of the fathers and 16 per cent of the mothers of the college

TABLE 11-6

Percentages or Medians of Responses to Selected Items[a] in the Student Information Blank Made by Respondents to the 1961 Mail Questionnaire Who Entered College and by Those Who Did Not

Item[b]	Percentages			
	Entered College[c]		Did Not Enter College[c]	
	Boys	Girls	Boys	Girls
91. High-school curriculum				
B. College preparatory	79.1	74.8	25.4	19.0
A. C-F. All others	20.9	25.1	74.6	81.1
Total	100.0	99.9	100.0	100.1
113. Grades in all courses since the 9th grade				
A,B,C. Mostly A's and B's or better	50.4	66.8	30.3	45.0
D,E,F. Mostly B's and C's or below	49.7	33.2	69.7	54.9
Total	100.1	100.0	100.0	99.9
114. Number of times colleges or college plans were discussed with teachers or principal				
A. None	13.4	12.7	42.6	43.8
B-F. One or more	86.6	87.3	57.4	56.3
Total	100.0	100.0	100.0	100.1
118. Number of times colleges or college plans were discussed with school counselor				
A. Have no counselor	19.8	21.7	31.9	35.1
B. None	13.0	12.2	32.5	31.8
C-F. One or more times	67.1	66.1	35.7	33.0
Total	99.9	100.0	100.1	99.9
130. Family breadwinner				
A. Father	90.7	89.5	84.9	84.7
B-F. Any others	9.2	10.5	15.1	15.2
Total	99.9	100.0	100.0	99.9
220. Heads of household				
A. Mother and father	87.5	86.9	81.1	80.8
B-J. Any others	12.6	13.1	18.8	19.2
Total	100.1	100.0	99.9	100.0
132. Father supervises work of others				
B-E. Yes	54.0	54.1	35.2	34.1
A,F. No or don't know	46.0	45.9	64.8	65.9
Total	100.0	100.0	100.0	100.0

TABLE 11-6 (continued)

Item[b]	Percentages			
	Entered College[c]		Did Not Enter College[c]	
	Boys	Girls	Boys	Girls
133. Father is responsible for money or property at his job				
C,D. Large amounts	53.2	48.1	34.5	29.1
A,B,E. None, small amounts, or don't know	46.9	51.9	65.5	71.0
Total	100.1	100.0	100.0	100.1
173. Family income in 1959				
A,B. Less than $6,000	27.5	30.3	44.8	50.1
C,D,E. $6,000 or more	72.5	69.8	55.2	49.9
Total	100.0	100.1	100.0	100.0
174. Family's finances				
A,B. Necessities only	12.4	11.6	21.1	20.3
C-F. Comfortable, or better	87.7	88.4	78.9	79.8
Total	100.1	100.0	100.0	100.1
176. Number of books in the home				
A,B,C. 100 or less	50.6	47.6	69.7	72.1
D,E,F. More than 100	49.4	52.3	30.3	27.8
Total	100.0	99.9	100.0	99.9
206. Father's occupation				
J-P. White collar	51.0	54.3	21.4	22.3
D-I. Blue collar	36.5	32.7	56.0	57.5
A,B,C. Farm	9.0	8.5	15.2	12.0
Q. Don't know	3.5	4.7	7.5	8.3
Total	100.0	100.2	100.1	100.1
208. Mother's occupation				
A. Housewife	54.6	52.2	56.2	53.3
J-P. White collar	28.8	32.3	16.3	18.5
D-I. Blue collar	13.0	12.0	20.7	22.6
B,C. Farm	0.5	0.6	0.9	0.6
Q. Don't know	3.1	2.8	5.8	4.9
Total	100.0	99.9	99.9	99.9
218. Father's education				
G,H,I,J. College graduate or higher	20.4	23.5	5.6	5.0
D,E,F. High School or high school plus some college	43.9	42.6	29.9	29.6
A,B,C. Did not graduate from high school	31.9	29.3	54.9	55.9
K. Don't know	3.8	4.6	9.7	9.5
Total	100.0	100.0	100.1	100.0

TABLE 11-6 (continued)

Item[b]	Percentages			
	Entered College[c]		Did Not Enter College[c]	
	Boys	Girls	Boys	Girls
219. Mother's education				
G,H,I,J. College graduate or higher	15.2	16.6	5.3	3.9
D,E,F. High school or high school plus some college	57.4	56.9	41.1	38.9
A,B,C. Did not graduate from high school	24.6	24.2	46.0	51.7
K. Don't know	2.8	2.3	7.7	5.5
Total	100.0	100.0	100.1	100.0
303. Plans to start college				
B. Immediately after high school	89.2	91.1	19.8	19.8
A,C-E. No plans, or plan to start later	10.8	9.0	80.3	80.2
Total	100.0	100.1	100.1	100.0
304. Greatest amount of education expected				
E,F. College degree or higher	86.7	74.2	22.0	9.8
A-D. High school or less, vocational, business, or junior college, some college	13.4	25.9	78.1	90.2
Total	100.1	100.1	100.1	100.0
306. Willing to take loan for college				
A. Yes	89.1	86.6	51.3	52.8
B. No	10.9	13.4	48.7	47.2
Total	100.0	100.0	100.0	100.0
337. Amount of education parents want you to have				
D,E. College or higher	85.7	77.2	35.1	20.3
A-C. High school or less, vocational, business, or junior college	8.1	15.5	42.5	59.2
F. Don't know	6.2	7.3	22.4	20.7
Total	100.0	100.0	100.0	100.2
338. Amount of education most friends are planning to obtain				
D,E. College or more	72.8	67.2	30.5	26.3
A-C. High school or less, vocational school or junior college or don't know	27.1	32.7	69.5	73.7
Total	99.9	99.9	100.0	100.0
363. How well off do you hope to be?				
C-E. Well-to-do, wealthy, or very wealthy	65.7	49.6	48.2	32.7
B. Comfortable	32.5	49.0	47.5	64.0
A. Have the necessities	1.7	1.4	4.2	3.2
Total	99.9	100.0	99.9	99.9

TABLE 11-6 (continued)

Item[b]	Percentages			
	Entered College[c]		Did Not Enter College[c]	
	Boys	Girls	Boys	Girls
364. How well off do you expect to be?				
D-F. Well-to-do, wealthy, extremely wealthy	37.5	20.9	25.3	13.5
C. Comfortable	52.7	67.7	58.5	70.2
B. Have the necessities	9.1	10.8	13.9	15.2
A. Barely able to make a living	0.8	0.7	2.2	1.2
Total	100.1	100.1	99.9	100.1
382. Amount expected to be needed for tuition, books, and fees in freshman year at college				
D-F. $600 or more	59.8	55.0	46.1	38.6
A-C. Less than $600	40.2	44.9	53.9	61.4
Total	100.0	99.9	100.0	100.0
390. Number of college applications made				
A. None	24.1	20.3	71.3	73.0
B-F. One or more	75.8	79.7	28.6	26.9
Total	99.9	100.0	99.9	99.9

Item	Medians			
	Entered College		Did Not Enter College	
	Boys	Girls	Boys	Girls
96. Days absent from school in 1959	3.6	4.2	5.2	4.8
97. Average hours of study each week	10.5	11.8	6.9	9.2
171. Monthly rental of home for those renting	$73	$78	$61	$62
172. Present value of home for those owning or buying it	$15,000	$16,500	$11,700	$12,000
221. Number of living children in the family	2.8	2.7	3.5	3.4
225. Number of rooms in the home	8.2	8.3	7.5	7.4
226. Number of people living in the home	4.4	4.4	4.7	4.7
238. Expected age at marriage	23.7	22.1	22.6	20.6

TABLE 11-6 (continued)

Item	Medians			
	Entered College		Did Not Enter College	
	Boys	Girls	Boys	Girls
239. Expected earnings per year 20 years after high-school graduation	$13,300	$7,700	$9,900	$6,400
240. Smallest earnings per year that would be satisfactory 20 years after high-school graduation	$9,500	$6,000	$7,700	$4,900

a/ Distributions are presented in Appendix K for 394 SIB items of the responses of the 1960 seniors who responded to the mail questionnaire (both those who entered college and those who did not) and for the seniors who did not respond to the mail questionnaire.

b/ The wording of the items and options in this table are paraphrased. See Appendix K for the exact wording.

c/ Within approximately one year after leaving high school.

group were college graduates whereas only about 5 per cent of the fathers and 4 per cent of the mothers of the noncollege group were college graduates. The median family income among college-attending respondents was almost $8,000 per year but among the noncollege respondents, it was about $6,200 per year.

The occupations of the fathers and mothers tended to be white-collar among the college group and blue-collar among the noncollege group (items 206 and 208). Other information about the occupations of parents was given in responses to items 132 and 133.

Respondents who entered college had higher hopes and expectations for their financial status in later years than noncollege respondents. The expected annual earnings of the former 20 years after graduation from high school were $13,300 for boys and $7,700 for girls whereas of the latter they were $9,900 and $6,400, respectively.

Factors Associated With Failure to Enter College

If young people do not obtain enough training of appropriate kinds to enable them to make reasonably full use of their skills and abilities, a serious loss of human talent results. The importance of minimizing talent loss to the community and to the nation can hardly be overstated. In the remainder of this chapter, data will be presented to show the relationship between several factors and failure to enter college within one year of graduation from high school. These data are presented in such a way that the effect of academic aptitude on the relationships can be ruled out of consideration.

Geographic Location

Table 11-7 shows the percentages of respondents to the 1961 mail questionnaire at each of several aptitude levels and in four geographic areas who did not enter college within one year of high-school graduation. The differences between areas were, in some cases, rather large. For example, in the percentile ranks from 70.0-79.9, about 50 per cent in the New England and Middle Eastern states but only about 30 per cent in the Southwest and Far West failed to enter college. The differences probably reflect the availability of low-cost junior colleges and state colleges in various regions.

Figure 11-2 shows in a different way the extent to which young people in eight U.S. Office of Education regions continued their educations through high school and into college. The data are estimates of percentages in the entire population and are not based solely on respondents to the Project TALENT questionnaires.

The height of the cross-hatched column in each region represents the percentage of all 16-year-olds who were in school in 1960. In regions 7 and 8 (the Rocky Mountain and far western states, respectively), this percentage was about 90. In region 5 (the southeastern

TABLE 11-7

Percentages and Weighted Frequencies of High-School Graduates in Geographic Areas Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade Twelve, by Academic Aptitude Percentile Rank

Aptitude Percentile Rank[a]	U.S. Office of Education Regions[b]			
	New England Mid-East (1+2)	Southwest Far West (6+8)	Southeast (5)	All Other Regions (3+4+7+9)
	Percentages			
90.0-99.9	12.7	9.1	13.1	13.6
80.0-89.9	30.9	21.1	27.2	29.6
70.0-79.9	49.8	29.7	37.4	42.2
60.0-69.9	57.5	31.7	47.3	52.4
50.0-59.9	68.9	40.2	53.9	59.7
40.0-49.9	73.8	46.4	56.8	66.8
30.0-39.9	79.0	50.4	63.1	73.3
20.0-29.9	88.2	60.9	67.3	77.1
10.0-19.9	86.9	59.6	70.9	82.7
0.0- 9.9	91.6	71.0	78.6	90.3
All ranks	52.49	35.73	49.10	49.75
	Weighted Frequencies (in Tens) on Which Percentages Are Based			
90.0-99.9	40,265	17,110	17,642	51,013
80.0-89.9	41,646	21,101	20,945	53,469
70.0-79.9	28,740	14,992	14,832	40,167
60.0-69.9	24,591	13,550	14,374	35,919
50.0-59.9	22,444	12,391	14,161	30,110
40.0-49.9	18,534	9,958	12,912	27,654
30.0-39.9	14,787	9,219	11,719	21,625
20.0-29.9	14,125	8,566	11,896	22,228
10.0-19.9	11,313	7,453	11,965	18,451
0.0- 9.9	10,415	6,196	16,442	15,653
Total	226,860	120,536	146,888	316,289

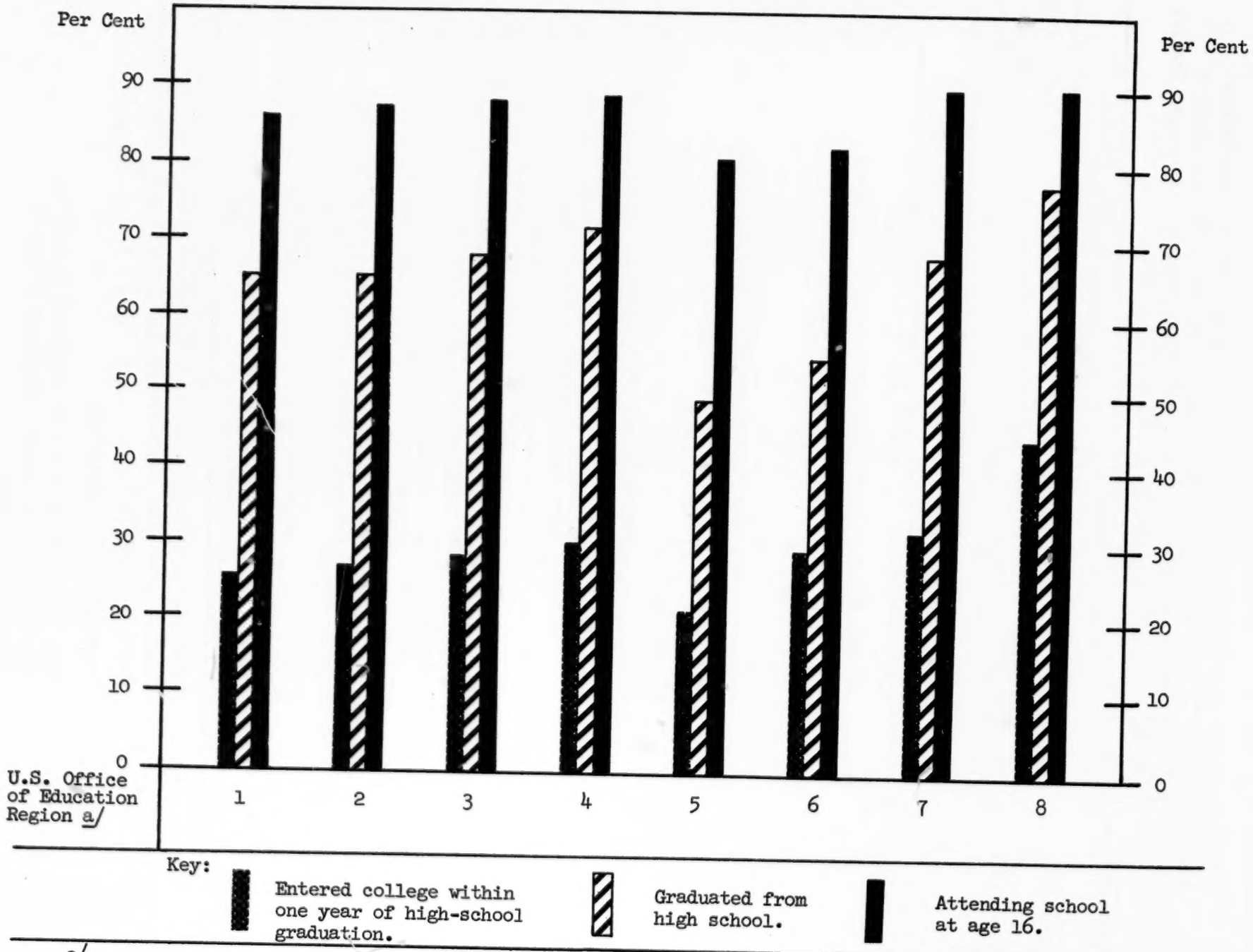
[a] Academic Aptitude was measured by a composite of four Project TALENT tests (C-013). The percentiles are based on a representative sample of pupils tested in grade 12 (March and April).

[b] The following regions were combined:

New England--Mid-East: Regions 1 and 2
Southwest--Far West: Regions 6 and 8
Southeast: Region 5
All Other Regions: Regions 3, 4, 7, and 9

FIGURE 11-2

Per Cent of Young People in Eight Geographical Regions
Reaching Various Educational Levels



a/ See Appendix N for states in each region.

states), it was about 81. The height of each striped column represents the percentage of the appropriate age group that graduated from high school in 1960. This percentage was lowest (49) in the Southeast; it was highest (78) in the Far West. The height of the solid black column represents the percentage of the appropriate age group that graduated from high school in 1960 and entered college within a year. This percentage ranged from 21 in the Southeast to about 44 in the Far West.

The data in Figure 11-2 demonstrate clearly the differences in educational opportunity that existed in the United States in 1960-1961. It is difficult to escape the conclusion that the secondary schools of the Southeast and Southwest lacked sufficient holding power. Many young people dropped out of school by age 16 and a very large number dropped out before they graduated from high school. The effect of providing free or essentially free junior colleges and colleges in the Far Western states is clearly reflected in the high percentage of young people in that area who entered college. A typical young man in the Far West apparently has about twice as great a probability of entering college as a young man of the same ability in the Southeast.

Family Income

In Table 11-8 are shown the percentages of boys and of girls at various family income levels who responded to the 1961 mail questionnaire and who did not enter college within a year after graduation from high school. At the highest aptitude levels, only a very small percentage of boys and a small percentage of girls do not enter college, regardless of family income level. For the great majority of boys and of girls, however, entrance to college was closely related to family income level. In the third quarter of the aptitude distribution (percentile ranks 50.0-74.9), 51.8 per cent of the boys and 74.8 per cent of the girls in families with annual incomes below $3,000 did not enter college; in families with annual incomes of $12,000 or more, only 20.3 per cent of the boys and 29.2 per cent of the girls did not do so.

Father's Education and Occupation

As shown in Table 11-9, when respondents to the 1961 mail questionnaire are grouped by educational level of their fathers, the percentages of those who did not enter college within one year varies directly with educational level. This is true even among respondents in the top 10 per cent of the aptitude distribution of all twelfth-grade students. For example, 13.9 per cent of the boys and 22.4 per cent of the girls at this aptitude level whose fathers did not complete high school did not enter college whereas only 2.6 per cent of the boys and 4.0 per cent of the girls at this aptitude level whose fathers were college graduates did not enter college.

A similar kind of relationship is shown in Table 11-10 between failure to enter college and type of occupation of the respondents' fathers. Among respondents in the top tenth of the distribution of

TABLE 11-8

Percentages and Weighted Frequencies of Male and Female High-School Graduates Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade Twelve, by Academic Aptitude Percentile and Family Income

Aptitude Percentile Rank[a]	Family Income in 1959[b] and Sex									
	Less Than $3,000		$3,000 to $5,999		$6,000 to $8,999		$9,000 to $11,999		$12,000 and up	
	M	F	M	F	M	F	M	F	M	F
	Percentages									
98.0-99.9	0.0	10.5	3.9	2.5	4.8	6.7	4.1	6.0	1.5	3.2
90.0-97.9	12.1	36.7	13.3	19.2	11.4	16.1	7.5	14.9	3.3	4.8
75.0-89.9	24.6	38.9	26.7	43.2	19.4	30.2	16.1	28.2	9.9	10.1
50.0-74.9	51.8	74.8	47.5	64.2	40.3	57.4	33.2	40.8	20.3	29.2
0.0-49.9	80.4	82.6	72.7	81.8	68.1	77.2	59.8	69.6	50.3	52.1
All ranks	61.35	71.54	49.19	63.07	39.43	53.19	31.30	42.48	20.69	25.56
	Weighted Frequencies (in Tens) on Which Percentages are Based									
98.0-99.9	21	19	230	120	395	179	245	149	327	187
90.0-97.9	107	120	940	665	1,329	831	755	503	899	578
75.0-89.9	171	270	1,537	1,556	2,133	1,693	1,168	758	1,139	834
50.0-74.9	419	511	2,211	2,692	2,789	2,546	1,254	1,106	1,010	969
0.0-49.9	884	1,129	3,508	3,433	3,182	2,806	1,403	1,180	1,169	962
Total	1,602	2,049	8,426	8,466	9,828	8,055	4,825	3,696	4,544	3,530

[a] Academic aptitude was measured by a composite of nine Project TALENT tests (C-002). The percentiles are based on a representative sample of pupils tested in Grade 12 (March and April).

[b] Family income for 1959, as estimated in 1960 by twelfth-grade pupils in item 173 of the Student Information Blank. Complete data for this item are presented in Chapter 5, Table 5-4.

TABLE 11-9

Percentage of High-School Graduates Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade 12, by Aptitude Percentile Rank and Father's Education

Aptitude Percentile Rank[a]	Father's Education											
	Did Not Complete High School		High-School Graduate		Some College		College Degree or Higher		Don't Know		Omitted	
	M	F	M	F	M	F	M	F	M	F	M	F
	Percentages											
90.0-99.9	13.9	22.4	8.4	16.6	7.2	11.1	2.6	4.0	13.0	12.4	11.8	18.6
75.0-89.9	27.1	43.6	17.2	34.3	13.5	23.9	10.3	11.0	30.9	36.7	14.9	32.6
50.0-74.9	48.7	67.6	36.3	51.8	25.1	42.8	20.0	21.4	45.1	66.1	42.1	54.1
25.0-49.9	66.2	81.6	53.7	70.0	47.8	56.2	31.6	38.6	69.9	77.1	69.1	71.2
0.0-24.9	82.0	87.8	71.8	79.7	63.8	67.0	58.4	67.5	86.2	85.1	81.1	86.5
All Ranks	53.6	70.6	35.6	52.6	24.3	37.3	15.7	21.0	62.7	72.1	53.9	63.7
	Weighted Frequencies (in Tens) on Which Percentages Are Based											
90.0-99.9	1440	1052	1426	970	1271	1003	1761	1370	123	89	136	86
75.0-89.9	2439	2506	1963	1868	1292	1320	1339	1389	262	264	228	181
50.0-74.9	3957	5362	2580	3023	1302	1805	1173	1502	475	710	292	412
25.0-49.9	3700	5479	1733	2308	776	1093	588	821	575	901	272	424
0.0-24.9	3362	4304	1157	1163	406	449	368	477	797	1096	512	452
Total	14898	18703	8859	9332	5047	5670	5229	5559	2232	3060	1440	1555

[a] General Academic Aptitude Composite (C-002).

TABLE 11-10

Percentage of High-School Graduates Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade 12, by Aptitude Percentile Rank and Father's Occupation

Aptitude Percentile Rank[a]	Father's Occupation																			
	White Collar								Blue Collar						Farms					
	Professional & Technical		Manager, Official or Proprietor		Clerical and Sales		All White Collar		Skilled and Semi-skilled		Labor, Household, Protective, and Service		All Blue Collar		Farmers and Farm Managers		Farm Laborers, and Foremen		Don't Know	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	Percentages																			
90.0-99.9	3.7	5.8	3.0	9.6	8.2	8.8	4.2	8.0	14.2	24.0	13.1	19.6	13.9	22.7	12.2	16.4	18.8	75.0	12.7	20.4
75.0-89.9	11.0	13.8	13.9	22.9	14.8	25.5	13.2	20.6	23.2	43.9	26.6	44.4	24.3	44.1	22.4	35.3	26.5	28.9	22.9	34.9
50.0-74.9	20.7	25.7	24.9	37.3	27.7	47.1	24.6	36.5	47.1	64.9	51.3	72.3	48.6	67.8	40.5	57.2	47.4	80.6	41.3	60.8
25.0-49.9	38.0	45.5	39.9	57.2	51.0	65.0	42.2	57.0	65.1	79.0	69.5	82.9	66.9	80.8	60.3	70.8	75.1	81.7	62.7	72.9
0.0-24.9	68.9	59.5	58.9	69.7	64.8	81.7	62.1	70.1	81.0	86.8	83.1	88.7	82.1	87.8	81.5	82.9	87.7	85.2	82.9	83.7
All Ranks	16.9	22.4	22.7	36.9	27.3	44.2	22.1	34.4	47.3	65.8	56.8	73.9	51.0	69.1	50.6	60.5	67.6	80.7	53.3	64.5
	Weighted Frequencies (in Tens) on Which Percentages Are Based																			
90.0-99.9	1287	1116	1708	1228	669	478	3664	2822	1332	897	558	373	1890	1270	329	219	32	16	361	235
75.0-89.9	1089	1066	1788	1779	775	663	3652	3508	1920	1912	921	933	2841	2845	513	589	68	38	581	627
50.0-74.9	823	1176	1892	2546	824	980	3539	4702	2833	3593	1635	2267	4468	5860	906	950	114	175	1020	1125
25.0-49.9	403	539	1212	1571	525	717	2140	2827	2208	3147	1553	2570	3761	5717	851	1004	169	230	1020	1234
0.0-24.9	228	311	676	773	261	306	1165	1390	1532	1920	1572	1944	3104	3864	912	770	268	406	1180	1176
Total	3830	4208	7276	7897	3054	3144	14160	15249	9825	11469	6239	8087	16064	19556	3511	3532	651	865	4162	4397

a/General Academic Aptitude Composite (C-002).

academic aptitude among twelfth-grade students, 4.2 per cent of the boys and 8.0 per cent of the girls whose fathers were in white-collar occupations did not enter college; but 13.9 per cent of the boys and 22.7 per cent of the girls whose fathers were in blue-collar occupations did not enter college. The analogous percentages of boys and of girls at this same aptitude level whose fathers were farm laborers or foremen were 18.8 per cent and 75.0 per cent, respectively.

Educational Plans and High-School Grades and Curriculum

Table 11-11 shows the percentages of respondents who did not enter college separated by aptitude level and type of plans for education that they had as high-school seniors. Among the respondents in the top tenth of the aptitude distribution, only 5.5 per cent of the boys and 5.6 per cent of the girls who planned to obtain at least a bachelor's degree did not enter college. Twelfth graders with other educational plans obviously tended to carry them out and did not enter college in large numbers.

Table 11-12 shows that small percentages of respondents in the top tenth of the aptitude distribution whose high-school marks were all or mostly A's had not entered college a year after their graduation from high school. It seems reasonable to suppose that virtually all of these respondents ought to have been able to enter college, and the fact that 6-8 per cent of the respondents in these categories did not enter college suggests that counselors and school administrators should devote special attention to them, particularly with respect to finding scholarships and fellowships.

One point in Table 11-12 that may deserve mention is the fact that 14 per cent of the twelfth-grade pupils who reported that they had received all A's in their courses were in the lowest quarter of the academic aptitude distribution; conversely, 6.4 per cent of those who reported that they received mostly D's or below in their courses were in the top tenth of the aptitude distribution. Granted that the marks are self-reported and that many factors other than academic aptitude determine school marks, these discrepancies appear worthy of investigation.

The choice of high-school curricula among respondents of different levels of aptitude is shown in Table 11-13. It is interesting to note that the percentages of respondents (especially boys) who were in the top tenth of the aptitude distribution but who did not enter college are small regardless of their high-school curricula. Comparisons from curriculum to curriculum of weighted numbers in the lower half of the table should be avoided because the respondents did not constitute a random selection of twelfth-grade students.

Table 11-14 shows the percentages of twelfth-grade boys and of girls who expected to specialize in each of three scientific fields and mathematics and who actually did not enter college. The percentage of boys expecting to major in physical sciences who did not enter college

TABLE 11-11

Percentage of High-School Graduates
Who Responded to the 1961 Mail Questionnaire
and Who Did Not Enter College Within One Year After Completing Grade 12,
by Aptitude Percentile Rank and Educational Plans

Aptitude Percentile Rank[a]	Educational Plans							
	High School Only or Less		Vocational, Business or Other		Some College		Bachelor's Degree or Higher	
	M	F	M	F	M	F	M	F
	Percentages							
90.0-99.9	92.6	97.0	50.9	71.1	25.9	23.7	5.5	5.6
75.0-89.9	85.3	92.2	67.3	72.9	40.3	37.2	11.3	9.4
50.0-74.9	93.0	95.6	74.2	79.9	47.8	43.6	16.4	15.7
25.0-49.9	93.3	96.8	78.2	81.3	52.2	56.9	25.6	25.1
0.0-24.9	95.4	98.4	84.0	87.9	73.2	64.3	40.8	37.0
All ranks	93.6	96.7	76.8	80.9	51.9	46.8	14.6	14.1
	Weighted Frequencies (in Tens) on Which Percentages Are Based							
90.0-99.9	68	99	114	280	135	312	5,652	3,813
75.0-89.9	353	655	431	1,279	402	919	6,077	4,520
50.0-74.9	1,218	2,671	1,320	3,472	941	1,703	5,663	4,662
25.0-49.9	1,901	3,823	1,543	3,483	837	1,122	2,634	2,161
0.0-24.9	2,396	3,387	1,122	2,082	549	586	1,226	994
Total	5,936	10,635	4,530	10,596	2,864	4,642	21,252	16,150

[a] General Academic Aptitude Composite (C-002).

TABLE 11-12

Percentage of High-School Graduates Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade 12, by Aptitude Percentile Rank and High-School Grades

Aptitude Percentile Rank[a]	High-School Grades													
	All A's		Mostly A's		Mostly A's and B's		Mostly B's and C's		Mostly C's and D's		Mostly D's or Below		Omitted	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	Percentages													
90.0-99.9	3.4	8.7	6.0	10.0	6.1	15.2	14.4	19.9	26.4	33.3	8.0	0.0	6.8	4.9
75.0-89.9	10.7	29.1	12.6	30.3	12.3	30.7	23.7	33.6	35.7	37.5	13.5	43.5	17.9	30.2
50.0-74.9	31.2	48.8	33.6	53.5	30.8	52.4	39.6	57.1	50.0	62.6	45.7	40.4	35.1	46.6
25.0-49.9	68.9	74.4	53.2	67.5	53.9	69.6	57.5	74.0	67.8	79.4	56.9	47.7	63.9	72.4
0.0-24.9	87.3	83.8	72.9	75.0	78.3	80.5	75.6	84.9	81.7	90.6	81.3	79.2	81.9	79.1
All Ranks	28.9	38.9	27.3	42.9	26.9	48.4	43.8	65.4	63.1	80.2	55.7	56.2	49.4	57.0
	Weighted Frequencies (in Tens) on Which Percentages Are Based													
90.0-99.9	594	652	1373	1334	2627	2080	1253	367	125	18	25	14	161	103
75.0-89.9	196	430	771	1302	2586	3817	3219	1633	518	120	37	23	196	202
50.0-74.9	154	420	712	1404	2150	4988	5080	5074	1328	519	81	47	276	365
25.0-49.9	148	246	477	991	1409	2877	3583	5386	1653	1101	109	44	263	384
0.0-24.9	213	247	517	651	1476	1750	2315	3286	1540	1522	134	96	404	392
Total	1305	1995	3850	5682	10248	15512	15450	15746	5164	3280	386	224	1300	1446

a/General Academic Aptitude Composite (C-002).

TABLE 11- 13

Percentage of High-School Graduates Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade 12, by Aptitude Percentile Rank and High-School Curriculum

Aptitude Percentile Rank[a]	High-School Curriculum													
	General		College Preparatory		Commercial or Business		Vocational		Agriculture		Other		No Answer	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	Percentages													
90.0-99.9	31.3	26.4	6.7	10.6	7.7	52.6	14.8	0.0	14.3	0.0	17.8	60.0	16.1	0.0
75.0-89.9	44.6	41.6	13.6	20.3	42.1	75.0	72.9	79.4	51.2	66.7	29.1	41.1	4.7	55.6
50.0-74.9	56.6	61.6	22.9	28.8	58.5	83.3	81.9	78.2	59.7	53.3	48.8	66.1	34.8	55.4
25.0-49.9	70.3	75.1	31.9	37.2	68.7	87.0	81.6	87.3	75.2	87.5	64.2	66.5	69.9	68.3
0.0-24.9	83.9	87.6	46.5	47.4	82.6	90.7	88.6	93.8	83.1	81.6	80.8	81.6	82.0	83.0
All Ranks	83.9	87.6	46.5	47.4	82.6	85.5	83.8	88.0	74.7	79.4	63.1	69.4	56.4	67.6
	Weighted Frequencies (in Tens) on Which Percentages Are Based													
90.0-99.9	262	208	5755	4160	26	154	27	4	14	0	45	25	31	18
75.0-89.9	792	766	6264	5476	140	1119	155	34	41	3	86	95	43	36
50.0-74.9	2276	2088	5762	5795	520	4340	717	239	226	15	209	239	69	101
25.0-49.9	2532	2231	2523	2496	702	5532	1144	355	395	40	246	269	103	104
0.0-24.9	2047	2161	1115	1038	683	3604	1591	549	592	49	432	364	139	182
Total	7909	7454	21419	18965	2071	14749	3634	1181	1268	107	1018	992	385	441

a/General Academic Aptitude Composite (C-002).

TABLE 11-14

Percentage of High-School Graduates
Who Responded to the Follow-Up Questionnaire
and Who Did Not Enter College Within One Year After Completing Grade 12,
by Aptitude Percentile Rank and Plans for a College Major Field

Aptitude Percentile Rank[a]	Plans for a College Major Field							
	Engineering		Biological Sciences		Physical Sciences		Mathematics	
	M	F	M	F	M	F	M	F
	Percentages							
90.0-99.9	5.0	9.8	7.7	3.4	4.2	3.1	9.7	8.9
75.0-89.9	14.1	9.5	11.7	15.8	14.8	19.0	11.3	18.9
50.0-74.9	30.8	20.0	23.1	18.4	19.7	25.0	19.5	18.5
25.0-49.9	44.1	0.0	24.7	37.5	30.3	38.5	41.2	27.5
0.0-24.9	67.6	0.0	46.9	61.5	58.0	60.0	69.8	39.0
All Ranks	23.5	9.9	19.2	17.3	14.1	13.6	20.2	15.1
	Weighted Frequencies (in Tens) on Which Percentages Are Based							
90.0-99.9	2065	41	169	174	898	265	452	394
75.0-89.9	1952	21	179	247	614	142	363	185
50.0-74.9	1677	5	242	152	452	80	262	81
25.0-49.9	830	2	97	72	132	26	114	40
0.0-24.9	527	2	64	26	88	10	116	41
Total	7051	71	751	671	2184	523	1307	741

a/General Academic Aptitude (C-002)

was lower than that of boys expecting to specialize in any of the other three fields for which data are shown. The percentage of girls expecting to specialize in engineering (a small number as shown by the weighted frequencies in the lower half of Table 11-14) who did not enter college was lower than that of girls expecting to specialize in any of the other three fields.

The expected tendency for the percentages of respondents who fail to enter college to increase as aptitude level decreases is apparent. The weighted frequencies show how much smaller are the numbers of girls than boys who expect to specialize in these fields. The great interest of boys in engineering is clearly reflected in the data.

Financial Arrangements

Tables 11-15, 11-16, and 11-17 provide information about sources of funds for paying college expenses. Over-all, about 27 per cent of the boys and 43 per cent of the girls who indicated their willingness to take a loan to help pay college expenses did not enter college. There is a strong positive correlation with level of academic aptitude.

Table 11-16 indicates that the more the respondents were willing to borrow, the more likely they were to enter college, regardless of their aptitude levels. The data in Table 11-17 show that the smaller the proportion of college funds a student can expect from his parents, the less likely he is to enter college regardless of his aptitude level.

The last table in this chapter, Table 11-18, confirms what is generally known about the relationship between college attendance and family income. Fortunately, the disparity between the percentages of boys from wealthy homes and from very-low-income homes who did not enter college is not great in the top tenth of the aptitude distribution. Presumably, scholarship and fellowship funds helped to keep the disparity from being larger than it was. Among girls and boys below the top fifth of the aptitude distribution, family income was obviously a major determinant of college entrance at each level of academic aptitude.

Summary

About 42 per cent of high-school graduates in 1960 entered college within a year of their graduation. Studies made by the National Science Foundation indicate that about 25 per cent of boys and 6 per cent of girls who do not enter college immediately after high-school graduation do so later on.

There is a strong positive correlation between academic aptitude level and entrance to college. Fortunately, there was only a small percentage of high-school graduates in the top 1 per cent of the aptitude distribution who did not enter college. In fact, only about 17 per cent of high-school graduates in the top quarter of the aptitude distribution did not enter college within one year of their graduation

TABLE 11-15

Percentage of High-School Graduates
Who Responded to the 1961 Mail Questionnaire
and Who Did Not Enter College Within One Year After Completing Grade 12,
by Aptitude Percentile Rank and Willingness to Take a Loan

Aptitude Percentile Rank[a]	Willing to Take a Loan	
	Males	Females
	Percentages	
90.0-99.9	6.3	10.3
75.0-89.9	14.0	24.7
50.0-74.9	28.5	45.0
25.0-49.9	48.1	62.3
0.0-24.9	66.0	74.1
All Ranks	27.1	43.1
Weighted Frequencies(in Tens) on Which Percentages Are Based		
90.0-99.9	5576	3994
75.0-89.9	6211	5991
50.0-74.9	6862	8756
25.0-49.9	4347	6184
0.0-24.9	2526	3443
Total	25522	28368

a/General Academic Aptitude Composite (C-002).

TABLE 11-16

Percentage of High-School Graduates Who Responded to the 1961 Mail Questionnaire and Who Did Not Enter College Within One Year After Completing Grade 12, by Aptitude Percentile Rank and Amount They Would Be Willing to Borrow to Attend College

Aptitude Percentile Rank[a]	Amount Would be Willing to Borrow to Attend College											
	$1,000+ Per Year		$1,000 Per Year		$750 Per Year		$500 Per Year		$250 Per Year		Not Borrow	
	M	F	M	F	M	F	M	F	M	F	M	F
	Percentages											
90.0-99.9	4.8	5.8	5.2	4.0	7.7	7.6	6.8	9.0	7.2	10.2	17.1	33.5
75.0-89.9	13.4	7.7	11.3	17.5	13.8	21.6	14.7	21.4	14.0	29.6	41.3	43.7
50.0-74.9	22.6	21.0	25.4	32.1	26.6	33.0	28.9	40.0	30.9	42.7	58.4	66.0
25.0-49.9	42.9	42.9	43.5	52.4	52.1	55.6	45.5	57.9	45.3	62.2	74.7	82.1
0.0-24.9	83.1	67.9	55.8	59.1	68.3	73.6	66.4	77.1	75.3	76.4	85.3	90.9
All Ranks	22.1	24.0	20.4	29.4	25.9	32.2	25.9	36.8	34.1	44.2	67.3	74.3
	Weighted Frequencies (in Tens) on Which Percentages Are Based											
90.0-99.9	641	171	1315	604	853	774	1342	1219	388	707	222	337
75.0-89.9	441	130	1152	830	959	1013	1548	1750	602	1152	603	773
50.0-74.5	381	181	1120	991	906	1133	1700	2215	815	1738	1316	2075
25.0-49.9	168	112	620	618	549	657	897	1463	567	1137	1484	2526
0.0-24.9	183	84	301	286	290	326	497	558	453	711	1491	2086
Total	1814	678	4508	3329	3557	3903	5984	7205	2825	5445	5116	7797

a/General Academic Aptitude Composite (C-002).

TABLE 11-17

Percentage of High-School Graduates
Who Responded to the 1961 Mail Questionnaire
and Who Did Not Enter College Within One Year After Completing Grade 12,
by Aptitude Percentile Rank and Percentage of College Funds Expected From Parents

Aptitude Percentile Rank[a]	Percentage of College Funds Expected From Parents							
	100%		80-60%		40-20%		0%	
	M	F	M	F	M	F	M	F
	Percentages							
90.0-99.9	3.9	3.8	3.1	7.3	7.1	10.3	12.6	25.8
75.0-89.9	6.8	12.9	8.6	16.2	15.6	28.4	31.3	46.6
50.0-74.9	17.5	26.4	22.9	32.4	31.9	49.5	50.7	69.7
25.0-49.9	31.5	50.0	40.3	53.6	54.5	70.3	74.8	84.8
0.0-24.9	67.4	65.6	64.1	72.2	74.2	83.8	87.2	93.2
All Ranks	20.3	32.2	20.9	31.5	32.1	47.7	54.3	72.9
	Weighted Frequencies (in Tens) on Which Percentages Are Based							
90.0-99.9	331	416	1297	1448	1787	1169	713	388
75.0-89.9	397	728	1450	2087	1675	1497	982	625
50.0-74.9	456	1118	1467	2710	1924	1876	1418	1305
25.0-49.9	270	906	829	1547	1329	1445	1174	1479
0.0-24.9	193	491	512	740	1013	1019	1020	1036
Total	1647	3659	5555	8532	7728	7006	5307	4833

a/General Academic Aptitude Composite (C-002).

TABLE 11-18

Percentage of High-School Graduates
Who Responded to the Follow-up Questionnaire
and Who Did Not Enter College Within One Year After Completing Grade 12,
by Aptitude Percentile Rank and Your Family's Finances

Aptitude Percentile Rank[a]	Your Family's Finances									
	Extremely Wealthy or Wealthy		Well-To-Do		Comfortable		Have The Necessities		Barely Make a Living	
	M	F	M	F	M	F	M	F	M	F
	Percentages									
90.0-99.9	3.7	0.0	5.1	4.9	7.7	13.5	14.5	21.5	16.1	42.9
75.0-89.9	13.5	3.5	10.4	14.7	19.5	32.4	27.0	39.5	21.7	58.5
50.0-74.9	25.3	23.0	23.0	30.6	40.2	55.3	41.8	67.8	51.2	76.4
25.0-49.9	39.4	50.8	44.2	53.8	59.1	73.7	70.3	80.1	78.9	80.4
0.0-24.9	83.5	83.2	72.5	75.9	77.0	84.4	81.6	87.5	87.6	87.3
All Ranks	40.0	39.7	28.2	39.2	39.8	55.9	51.2	67.6	70.1	79.4
	Weighted Frequencies (in Tens) on Which Percentages Are Based									
90.0-99.9	136	103	918	596	4394	3343	633	483	31	21
75.0-89.9	170	113	1104	794	5268	5507	822	1000	69	65
50.0-74.9	162	161	1075	1198	6885	9449	1408	1720	125	144
25.0-49.9	137	118	838	1065	5202	7767	1159	1725	166	225
0.0-24.9	273	220	748	940	3843	4864	1128	1428	338	292
Total	878	715	4683	4593	25592	30930	5150	6356	729	747

a/General Academic Aptitude Composite (C-002).

from high school. The aptitude distributions of those who entered college show that two-year-college freshmen are selected only to a small extent on academic aptitude but that four-year-college freshmen represent a group of high-school graduates who are considerably higher in average academic aptitude than twelfth graders.

The dropout rate among college freshmen varies greatly from one institution to another. In the Project TALENT sample, about 21 per cent of the boys and 24 per cent of the girls dropped out during or at the end of the freshman year. The reasons for dropping out were discussed in Chapter 10.

Responses to the 1961 mail questionnaire indicate that respondents who entered college differed significantly from those who did not enter college in several respects. They differed in their educational backgrounds and plans and in family characteristics. In general, the families of those who entered college were more highly educated, more affluent, and more interested in seeing that their children had college training.

Several other factors were positively related to entrance to college. One of the most important of these was geographic region. Among respondents to the 1961 mail questionnaire, the rate of entrance to college was highest in the Far West and Southwest and lowest in New England and the Middle East. However, data based on all school children and on the entire Project TALENT sample lead to the conclusion that the secondary schools of the Southeast and the Southwest lacked holding power in comparison with those in other parts of the United States and that opportunities for attending college were much greater in the Far West than in some other sections of the country.

It is important to note that a large percentage of the twelfth-grade pupils who responded to the 1961 mail questionnaire indicated that they were willing to take a loan to help pay their college expenses. The majority were willing to take loans of from $250 to $750 per year for this purpose.

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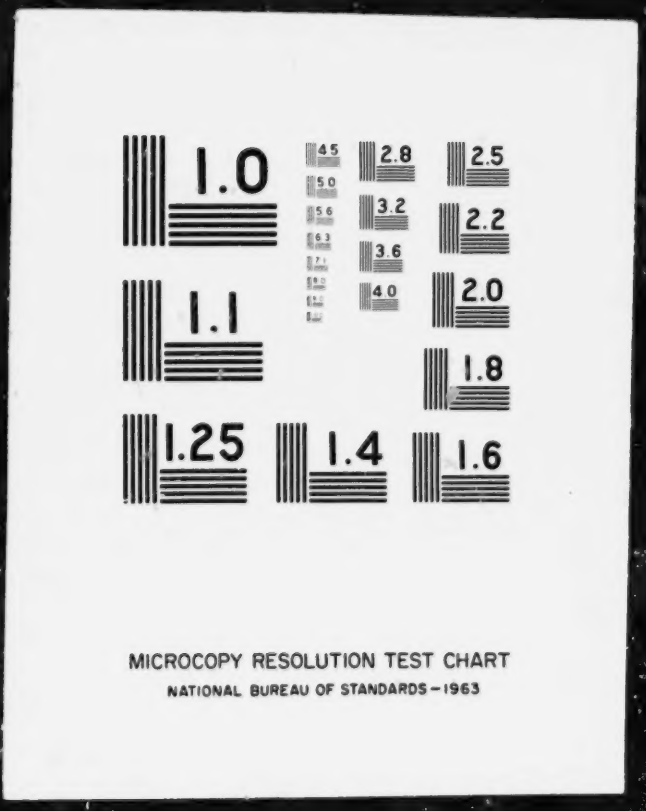

Chapter 12

MAJOR FIELDS OF STUDY AND DEGREE PLANS

Major Fields of Study

Choice of a field of specialization by the members of the Project TALENT sample of twelfth-grade students who were tested in the spring of 1960 and who entered college within a year after leaving high school was discussed in Chapter 10 (page 10-58).

Table 12-1 shows in more detailed form the percentages of boys and of girls at each of 12 levels of academic aptitude who responded to the 1961 mail questionnaire and designated certain fields of study for specialization. It should be noted that the rank orders of popularity of the various subject-matter fields were not the same at different aptitude levels. For example, among boys in the top 1 per cent of the aptitude distribution, the most popular field was engineering, but among boys in the lowest quarter of the distribution, it was business and commerce. Among girls in the top 1 per cent of the aptitude distribution, the most popular field was English and literature, but among girls in the lowest quarter of the distribution, it was education. Inspection of the data across the rows of Table 12-1 will yield other interesting comparisons of this type. Changes in popularity of any given field with changes in aptitude level are especially noticeable.

Differences between boys and girls in the popularity of fields of specialization were marked. The fact that boys and girls of relatively high aptitude preferred to study engineering and to study English and literature, respectively, and that boys and girls of relatively low aptitude preferred to study business and commerce and to study education, respectively, has already been mentioned. In general, boys tended to gravitate to the sciences, mathematics, and business and commerce while girls tended to gravitate toward languages (including English), the social studies, and education. These trends reflected job opportunities for college graduates as freshmen perceive them. They are in harmony with the data shown in Chapter 10 indicating that the principal motivation for attending college was vocational preparation.

TABLE 12-1

Percentages of Respondents to the 1961 Mail Questionnaire at Each of Twelve Aptitude Levels Who Entered College and Designated Certain Fields of Study for Specialization

Aptitude Percentile Rank[a]	Engineering, Science, and Mathematics					Liberal Arts and Humanities												
	Engineering	Phys. Sci.	Biol. Sci.	Math	Subtotal	Eng. and Lit.	Foreign Lang.	Social Studies	Psychol.	Religion	Philosophy	Subtotal	Education	Bus. and Comm.	Agri. or Home Econ.[b]	Fine Arts and Music	Other Fields	Subtotal	Total
	Per Cent of College Freshman Males																	
98.0-99.9	25.5	16.9	8.0	10.6	61.0	6.8	1.2	8.8	1.2	0.7	2.3	21.0	0.8	5.8	0.0	2.7	8.6	17.9	99.9
95.0-97.9	27.5	14.9	8.6	8.3	59.3	4.5	2.0	8.5	2.4	0.6	1.7	19.7	1.1	7.9	0.5	1.2	10.3	21.0	100.0
90.0-94.9	27.1	9.5	8.1	8.2	52.9	3.6	1.1	8.1	3.0	1.1	1.9	18.8	2.9	11.2	1.5	1.8	11.0	28.4	100.1
85.0-89.9	22.7	8.2	8.7	6.6	46.2	4.0	2.2	6.2	2.6	0.6	1.2	16.8	4.2	15.4	1.6	3.0	12.8	37.0	100.0
80.0-84.9	18.4	7.9	7.2	6.5	40.0	2.8	1.3	8.7	4.1	1.3	0.9	19.1	4.6	17.6	3.0	3.7	11.7	40.6	99.7
75.0-79.9	16.8	5.7	8.9	7.1	38.5	3.1	1.0	8.6	3.5	1.0	0.5	17.7	4.9	20.7	3.2	3.1	12.2	44.1	100.3
70.0-74.9	14.8	4.8	9.2	5.9	34.7	2.6	0.5	8.5	2.3	1.4	0.5	15.8	3.8	20.6	4.8	2.7	17.5	49.4	99.9
60.0-69.9	13.2	5.4	7.2	4.4	30.2	3.2	0.8	8.8	2.7	1.1	0.2	16.8	7.1	24.3	5.7	3.1	12.7	52.9	99.9
50.0-59.9	10.7	3.3	5.9	5.5	25.4	1.9	1.0	7.3	2.4	1.6	0.8	15.0	8.2	27.1	5.2	4.1	14.8	59.4	99.8
40.0-49.9	9.9	3.1	6.7	3.8	23.5	1.6	0.4	8.1	2.9	1.4	0.1	14.5	10.4	24.3	4.8	5.0	17.1	61.6	99.6
25.0-39.9	8.9	3.6	6.1	2.4	21.0	0.6	0.3	7.7	1.6	0.8	0.2	11.2	9.1	30.9	7.8	4.8	15.3	67.9	100.1
0.0-24.9	9.0	3.8	6.2	3.4	22.4	1.5	0.2	7.2	2.3	1.4	0.6	13.2	10.6	19.5	7.3	5.9	20.6	63.9	99.5
	Per Cent of College Freshmen Females																	
98.0-99.9	0.7	8.9	10.7	11.4	31.7	17.3	7.6	10.0	5.8	1.5	1.3	43.5	5.6	1.4	1.6	1.9	14.3	24.8	100.0
95.0-96.9	0.4	5.0	7.4	12.2	25.0	14.0	7.9	6.3	4.7	0.8	1.0	34.7	11.8	1.9	1.9	7.2	17.6	40.4	100.1
90.0-94.9	0.5	3.6	8.5	7.4	20.0	12.0	7.5	7.7	3.7	0.3	0.1	31.3	18.6	3.9	3.9	5.9	16.4	48.7	100.0
85.0-89.9	0.2	3.2	8.5	6.0	17.9	11.1	5.8	6.9	3.6	0.3	0.5	28.2	22.4	7.0	3.8	5.2	15.5	53.9	100.0
80.0-84.9	0.2	1.1	6.9	2.5	10.7	10.9	6.8	6.8	5.3	1.0	0.1	30.9	24.0	7.4	4.5	7.6	14.8	58.3	99.9
75.0-79.9	0.1	1.2	6.0	2.3	9.6	9.2	4.5	6.3	3.9	0.7	0.5	25.1	26.0	10.7	4.3	7.2	17.1	65.3	100.0
70.0-74.9	0.2	0.7	6.0	2.2	9.1	8.5	4.3	6.1	3.4	1.3	0.1	23.7	29.6	9.6	4.0	5.6	18.3	67.1	99.9
60.0-69.9	0.2	0.6	5.2	1.1	7.1	7.8	2.6	5.9	3.6	0.6	0.0	20.5	31.2	12.8	4.1	7.7	16.6	72.4	100.0
50.0-59.9	0.1	0.5	3.7	0.7	5.0	5.7	2.1	7.2	2.6	0.6	0.1	18.3	28.8	14.0	6.6	7.2	19.8	76.4	99.7
40.0-49.9	0.2	0.6	4.7	0.8	6.3	4.8	1.4	5.6	3.8	1.1	0.2	16.9	28.8	15.9	6.0	8.7	17.1	76.5	99.7
25.0-39.9	0.1	0.7	4.0	0.9	5.7	2.9	1.1	6.6	4.0	1.1	0.2	15.9	27.8	19.1	7.9	6.3	17.2	78.3	99.9
0.0-24.9	0.0	1.1	4.0	2.6	7.7	4.2	0.6	4.8	2.9	2.6	0.0	15.1	31.4	20.8	6.6	5.2	13.2	77.2	100.0

[a] The percentile ranks are based on the scores of all twelfth-grade pupils in the Project TALENT sample on the Academic-Aptitude Composite (C-002).

[b] Agriculture, males only; home economics, females only. The frequencies for males choosing home economics and females choosing agriculture were too small to provide stable estimates.

Degree Plans

Table 12-2 shows that very large percentages of college freshmen in the upper levels of academic aptitude planned to obtain at least a bachelor's degree. The percentages decrease as aptitude level decreases, especially among girls enrolled as freshmen in junior colleges. Apparently, a large proportion of freshmen in junior colleges expected to transfer to other institutions to continue undergraduate work beyond the sophomore year.

The percentages in Table 12-3 are based on the twelfth-grade pupils tested in 1960 who entered college within a year after leaving high school and who indicated in response to the 1961 mail questionnaire that they planned to obtain one or more of the following degrees: B.A., B.S., M.A., M.S., Ph.D., Ed.D., M.D., D.D.S., or L.L.B. Approximately, 5.1 per cent of the boys and 7.6 per cent of the girls stated that they planned to obtain degrees other than those listed, but they are not included in the respondents on which the percentages in Table 12-3 are based.

Inspection of the data indicates that academic aptitude was positively correlated with plans to obtain an advanced degree. In the top 1 per cent of the aptitude distribution, about 64 per cent of the students planned to obtain an advanced degree whereas in the bottom quarter of the distribution only about 37 per cent planned to do so. Nonetheless, this percentage seems unrealistically high. For example, 13.3 per cent of the young men and 12.0 per cent of the young women in the bottom quarter of the aptitude distribution planned to obtain the Ph.D. or the Ed.D. degree. This objective seems unrealistic for college freshmen at their aptitude levels.

As a matter of fact, estimates made by Dailey and Goldberg[1] in 1963 indicated that about 51,000 college freshmen were planning to obtain the Ph.D. or Ed.D. degrees. It is doubtful whether more than 13-14 thousand degrees of this type will be granted annually in the period from 1968-1970. Hence, it appears likely that the plans of many students were highly unrealistic.

Summary

There were marked differences in the field of specialization in college studies between boys and girls and among groups of both boys and girls at various levels of academic aptitude. Boys and girls of high aptitude preferred engineering, and English and literature, respectively. Boys and girls in the bottom quarter of the aptitude

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[1] Dailey, J. T., and Goldberg, I. Research on Academic Degree Projections. Interim Report to the Science Resources Planning Office, National Science Foundation. Washington: American Institute for Research, 1963, pp. 38-40.

TABLE 12-2

Percentages of Respondents to the 1961 Mail Questionnaire at Each of Twelve Aptitude Levels Who Entered College and Planned to Obtain a Bachelor's Degree

Aptitude Percentile Rank[a]	All Colleges			Four-Year College			Junior College		
	Sexes Comb.	M	F	Sexes Comb.	M	F	Sexes Comb.	M	F
	Per Cent Planning to Obtain the Bachelor's Degree								
98.0-99.9	95.9	96.1	95.5	95.9	95.9	95.9	94.0	100.0	86.8
95.0-97.9	93.7	95.6	90.9	94.8	96.3	92.6	70.3	80.3	58.4
90.0-94.9	92.6	94.5	90.1	93.3	95.1	91.0	83.9	88.0	76.5
85.0-89.9	89.4	90.9	87.4	91.0	92.1	89.7	75.4	82.4	63.9
80.0-84.9	87.3	89.5	84.9	89.4	91.5	87.0	74.9	77.8	71.2
75.0-79.9	85.5	89.0	81.5	88.0	90.6	85.2	71.4	81.0	58.8
70.0-74.9	83.1	87.3	78.7	85.8	90.1	81.7	69.4	75.5	60.9
60.0-69.9	80.8	86.1	75.4	84.9	89.0	80.8	65.3	75.6	53.0
50.0-59.9	77.0	82.8	71.1	81.9	86.7	77.0	61.5	70.7	51.0
40.0-49.9	75.0	80.5	69.3	80.4	87.0	73.6	61.2	64.5	57.6
25.0-39.9	69.1	76.3	61.7	76.4	83.1	69.3	53.9	61.6	46.1
0.0-24.9	69.9	70.4	69.3	77.0	76.4	77.8	57.0	60.4	52.8

[a] See footnote a to Table 12-1.

TABLE 12-3

Percentages of Respondents to the 1961 Mail Questionnaire at Each of Twelve Aptitude Levels Who Entered College and Indicated the Highest Degrees They Planned to Obtain

Aptitude Percentile Rank[a]	Bachelor's Degree			Master's Degree			Ph.D. or Ed.D.		
	Both Sexes	M	F	Both Sexes	M	F	Both Sexes	M	F
98.0-99.9	36.5	28.6	50.1	28.3	24.8	34.3	21.5	28.0	10.3
95.0-97.9	43.6	34.2	58.0	29.6	28.5	31.3	16.2	21.7	7.8
90.0-94.9	52.4	44.7	62.8	27.1	27.1	27.0	11.1	13.8	7.5
85.0-89.9	56.8	49.5	66.4	25.2	25.9	24.3	9.8	12.1	6.7
80.0-84.9	60.3	54.7	67.1	24.1	22.0	26.6	8.3	10.6	5.5
75.0-79.9	64.9	58.4	73.0	19.9	19.9	19.9	7.8	10.1	4.9
70.0-74.9	67.1	62.0	72.8	21.6	20.9	22.3	5.7	7.3	3.9
60.0-69.9	69.0	64.3	74.6	20.8	20.6	21.1	5.7	7.6	3.3
50.0-59.9	70.0	66.4	74.4	19.5	20.3	18.6	6.6	7.1	5.8
40.0-49.9	71.4	70.1	72.9	19.1	18.4	20.0	5.4	5.5	5.1
25.0-39.9	71.2	66.9	76.6	17.3	17.3	17.3	6.6	7.6	5.4
0.0-24.9	62.7	61.6	63.9	19.3	17.4	21.5	12.0	13.3	10.7

Aptitude Percentile Rank[a]	M.D. or D.D.S.			L.L.B.			Total		
	Both Sexes	M	F	Both Sexes	M	F	Both Sexes	M	F
98.0-99.9	9.7	12.4	4.8	4.1	6.2	0.5	100.1	100.0	100.0
95.0-97.9	7.7	10.9	2.9	2.9	4.8	0.0	100.0	100.1	100.0
90.0-94.9	6.8	10.3	2.2	2.6	4.2	0.4	100.0	100.1	99.9
85.0-89.9	6.1	9.3	2.0	2.1	3.1	0.7	100.0	99.9	100.1
80.0-84.9	5.1	8.9	0.4	2.2	3.8	0.3	100.0	100.0	99.9
75.0-79.9	5.4	8.5	1.5	2.0	3.1	0.6	100.0	100.0	99.9
70.0-74.9	3.8	6.7	0.7	1.8	3.0	0.4	100.0	99.9	100.1
60.0-69.9	3.2	5.3	0.7	1.2	2.1	0.3	99.9	99.9	100.0
50.0-59.9	2.8	4.5	0.6	1.1	1.7	0.5	100.0	100.0	99.9
40.0-49.9	3.1	4.3	1.8	1.0	1.7	0.2	100.0	100.0	100.0
25.0-39.9	4.0	6.6	0.7	0.9	1.5	0.0	100.0	99.9	100.0
0.0-24.9	4.4	5.2	3.5	1.5	2.5	0.3	99.9	100.0	99.9

[a] See footnote a to Table 12-1.

distribution preferred business and commerce, and education, respectively.

Very large percentages of freshman boys and girls of high academic aptitude expected to obtain at least a bachelor's degree. The percentages decrease with drop in aptitude level.

The percentages of a defined group of boys and girls who planned to obtain advanced degrees showed that even among students in the lowest quarter of the aptitude distribution, 37 per cent expected to obtain advanced degrees. These and other data lead to the conclusion that the young men and women who responded to the mail questionnaire and entered college within a year after leaving high school were unduly optimistic about their chances of obtaining advanced degrees.

Chapter 13

AMERICAN YOUTH SEEKS EMPLOYMENT

Introduction

The mail questionnaire sent in 1961 to all boys and girls who had been tested in March and April of 1960 included questions about the full-time jobs, if any, that they had held after leaving high school. Data about the responses made to most of these questions are given in Table 10-1 on pages 10-7 to 10-19. Responses to question 17, however, are not provided in Table 10-1. This question, referring to a full-time paid job held in May 1961, was as follows: "What is the job called?" The respondents wrote in the names of their jobs, if any, and these were coded for tabulation in terms of the four-digit job categories listed in Appendix I.

The data showed that about 36.6 per cent of the 18,262 boys who responded to the mail questionnaire had full-time jobs in May 1961. About 36.9 per cent of the 21,408 girls who responded had such jobs. The distributions of these boys and girls among 31 categories of jobs are shown in Table 13-1. The percentages shown in this table are based on weighted frequencies corresponding to the unweighted frequencies presented in the table. The latter are used to show the actual numbers of cases underlying the data. Percentages based on weighted frequencies are corrected for the under- and over-representation of schools of various types in the Project TALENT sample. Consequently, they may be regarded as estimates of percentages in the population represented by the respondents to the 1961 mail questionnaire.

Jobs Held by Recent High-School Graduates

Among the boys who had entered college during 1960-1961, 2,237, or 20.6 per cent, held full-time jobs in May 1961. It must be recognized that many of these boys entered college but had dropped out by that time; others were still in college while holding full-time jobs. Of the girls who had entered college during 1960-1961, 1,253, or 13.2 per cent, held full-time jobs in May 1961. Again, many had dropped out of college by that date. As would be expected, among boys and girls who had not entered college by May 1961, larger percentages held full-time jobs. For boys, this percentage was 60.0; for girls, it was 55.7.

TABLE 13-1

Numbers of Respondents to the 1961 Mail Questionnaire Who Held and Did Not Hold Full-Time Jobs at Some Time in the Year After Graduation From High School in 1960, and Percentages of Those Who Held Such Jobs Who Were in Selected Occupational Groups

Job Code	Job Description[c]	Males				Females				Total	
		Entered College		Did Not Enter College		Entered College		Did Not Enter College			
		N[a]	%[b]	N[a]	%[b]	N[a]	%[b]	N[a]	%[b]	N[a]	%[b]
12	Draftsman, surveyor, lab.technician,etc.	106	4.2	76	1.7	7	0.5	12	0.2	201	1.3
15	Nurse, medical technician, etc.	31	1.4	28	0.6	51	4.6	165	2.6	275	1.9
24	Teacher of young children, etc.	2	0.0	0	0.0	12	1.0	8	0.1	22	0.1
25	Library assistant, etc.	4	0.1	3	0.1	11	0.8	12	0.2	30	0.2
31	Commercial artist, etc.	4	0.1	6	0.1	5	0.4	10	0.1	25	0.2
36	Physical education worker, etc.	32	1.5	7	0.2	17	1.5	1	0.0	57	0.4
37	Camp counselor, park attendant, etc.	45	1.9	16	0.3	30	2.4	6	0.1	97	0.7
41	Accountant, business worker, etc.	58	2.5	65	1.4	16	1.3	77	1.2	216	1.4
43	Salesclerk, salesman, etc.	232	10.0	253	5.5	104	8.3	339	5.1	928	6.2
44	Bookkeeper, cashier, stat.clerk, etc.	74	3.1	83	1.7	118	9.1	790	12.1	1,065	7.2
45	Business-machine operator, etc.	11	0.6	31	0.7	29	2.4	290	4.2	361	2.4
46	Secretary, typist, clerk, steno., etc.	122	4.8	163	3.5	528	40.1	3,312	48.8	4,125	27.1
47	Tel.op., receptionist, stock clerk, etc.	277	11.8	537	11.4	113	9.1	542	8.2	1,469	9.8
51	Electrician, mechanic, etc.	146	6.6	509	11.2	6	0.6	23	0.3	684	4.7
52	Repairman, etc.	2	0.1	15	0.3	0	0.0	2	0.0	19	0.1
53	Carpenter, plumber, welder, etc.	191	8.8	387	8.9	1	0.1	6	0.1	585	4.2
54	Miner, oil worker, etc.	7	0.4	16	0.4	0	0.0	0	0.0	23	0.2
55	Driver, railroad man, etc.	88	4.0	147	3.5	1	0.0	2	0.0	238	1.7
56	Pressman, printer, etc.	16	0.7	83	1.9	1	0.1	13	0.2	113	0.8
57	Photographer, seamstress, etc.	16	0.6	28	0.6	3	0.3	48	0.8	95	0.7
58	Cook, baker, counter attendant, etc.	69	3.1	109	2.3	21	1.9	52	0.8	251	1.7
59	Other type of skilled worker	10	0.5	27	0.6	2	0.1	13	0.2	52	0.4
61	Member of armed forces (enlisted)	81	3.6	615	14.0	4	0.3	24	0.4	724	5.1
63	Policeman, guard, etc.	10	0.4	13	0.3	0	0.0	2	0.0	25	0.2
71	Farmer, hired hand, etc.	103	5.7	256	6.3	0	0.0	6	0.1	365	2.9
72	Gardener	11	0.6	14	0.3	1	0.1	0	0.0	26	0.2
73	Nurseryman, etc.	8	0.3	14	0.3	0	0.0	2	0.0	24	0.2
74	Forester, logger, guide, etc.	11	0.6	15	0.5	0	0.0	1	0.0	27	0.2
81	Worker: gas sta.,cafe, beauty shop, etc.	165	7.8	321	7.5	113	9.4	389	6.2	988	7.1
82	Baby sitter, domestic servant, etc.	4	0.2	8	0.2	24	2.4	145	2.3	181	1.3
84	Unskilled laborer	256	12.0	549	12.6	23	2.0	309	4.8	1,137	8.1
	All other jobs	45	1.9	55	1.3	12	1.1	39	0.6	151	1.0
	SUBTOTAL	2,237	100	4,449	100	1,253	100	6,640	100	14,579	100
	No full-time job	8,612		2,964		8,235		5,280		25,091	
	TOTAL	10,849		7,413		9,488		11,920		39,670	

[a] Unweighted N. [b] Weighted N's used as basis for computing percentages. [c] See Appendix I for details of job categories.

Of boys who had entered college, the largest percentage held full-time jobs as unskilled laborers in factories, on construction projects, as janitors, etc. Twelve per cent fell in this category. The next largest percentage (11.8) were in clerical and stock-checking jobs of several types. Ten per cent were in selling jobs, principally as sales clerks. About 8.8 per cent were skilled workmen, such as carpenters and metal workers.

The largest percentage (14) of boys who had not entered college were members of the armed forces. About 12.6 per cent were unskilled laborers, 11.4 per cent were in clerical and stock-checking jobs, and 11.2 per cent were electricians, mechanics, or machine-tool workers.

It is interesting to note the different patterns of jobs held by boys who had entered college and dropped out or who were still in college and boys who had never entered college. Both groups entered unskilled jobs and clerical and stock-checking jobs, but the group that had not entered college entered the armed forces and engaged in electrical and mechanical jobs to a far greater extent than the group that had entered college. Conversely, the latter group entered selling jobs to a greater extent than the former.

About 40 per cent of the girls who had entered college had office jobs as secretaries, typists, etc.; 9.4 per cent were waitresses, hairdressers, etc.; 9.1 per cent were telephone operators, receptionists, etc.; 9.1 per cent were bookkeepers, cashiers, etc.; and 8.3 per cent were in various selling jobs, mainly as salesgirls. Of the girls who had not entered college, about 49 per cent had office jobs as secretaries, typists, etc.; 12.1 per cent were bookkeepers, cashiers, etc.; and 6.2 per cent were waitresses, hairdressers, etc. By and large, the distributions of girls who had and had not entered college were similar.

Comparison of the 31 occupations listed in terms of the proportions of workers who were male and female shows the expected differences. Girls made up very large percentages of all workers in job codes 15, 44, 46, and 47. Boys made up very large percentages of all workers in job codes 51, 53, 61, 63, 71, and 84. More detailed comparisons can be made by reference to Table I-1 in Appendix I.

Aptitudes, Abilities, and Interests of Boys and Girls in Selected Occupational Groups

The average scores on tests administered in March and April of 1960 to groups of boys and girls who reported that they had full-time jobs of selected types in May 1961 were computed for all those for whom test data were on the Project TALENT master tape in 1963. These average scores have been expressed as deviations from the mean scores on the same tests of all boys and girls, respectively, tested in grade 12 with the Project TALENT battery in 1960 and for whom records were available on the master tape in 1963. For instance, the average test score of a group of boys who reported that they held full-time jobs in a given category in

May 1961 has been expressed as a standard measure in the distribution of scores on the same variable among all twelfth-grade boys tested in 1960 and included on the 1963 master tape.

Table 13-2 shows the 34 variables for which averages were computed, the mean scores of all twelfth-grade boys and girls for whom data were available, and the standard deviations of the distributions. The Interest Inventory Scales for which scores were available were similar to but not identical with the scales for which data were reported in Chapter 6.

Table 13-3 presents the average standard measures for males in 19 selected occupational groups on the 34 variables. Positive standard measures indicate that the average boy in an occupational group scored higher than the average of all twelfth-grade boys; conversely, negative standard measures indicate that the average boy in an occupational group scored lower than the average of all twelfth-grade boys.

Inspection of the data in Table 13-3 reveals many interesting differences and patterns of abilities among the 19 occupational groups. Reading up and down the columns shows differences among the groups on each of 34 variables; reading across the rows shows the pattern of scores in each of the 19 groups. Some of the highlights of the data may be summarized as follows.

The group highest in verbal aptitude (C-003) and in reading comprehension (R-250) and literature (R-103) includes the medical and laboratory technicians. The group lowest in verbal aptitude and reading comprehension includes leather workers and tailors. Operators of earth-moving equipment are lowest in literature. Interestingly enough, the leather workers and tailors are higher than any other group on visualization in two dimensions (R-281).

In technical aptitude, as measured by Composite C-005 (See page B-8 for its composition.), electricians, radio-TV repairmen, etc. are the highest and leather workers and tailors are the lowest of the occupational groups. As would be expected, the medical or laboratory technicians and mechanics are also high in technical aptitude as well as in mechanical reasoning.

It is worth noting that the highest scores on the four a priori Interest Inventory Scales were obtained by electricians and radio-TV repairmen, etc. in Physical Science; by commercial artists and recreation workers in Literature and Linguistics; by office clerks, secretaries, etc. in Office Work; and by mechanics in Mechanics-Technology.

The pattern of standard measures obtained by the group of 31 male medical or laboratory technicians can be observed by reading across the first line of each part of Table 13-3. This group tends to be high on

TABLE 13-2

Means and Standard Deviations of Scores of All Twelfth-Grade Males and Females Tested in 1960 on Selected Project TALENT Tests and Scales[a]

Test	Males		Females	
	Mean	S.D.	Mean	S.D.
Aptitude Composites				
Academic (C-002)	539.52	126.54	534.00	112.27
Verbal (C-003)	117.07	21.32	121.99	19.72
Quantitative (C-004)	118.97	52.64	96.16	43.42
Technical (C-005)	59.52	17.07	38.55	13.02
Scientific (C-006)	605.45	181.39	504.00	154.26
Information Tests				
Literature (R-103)	14.05	4.80	14.00	4.68
Physical Science (R-107)	10.41	4.43	7.26	3.97
Biological Science (R-108)	6.79	2.29	5.72	2.28
Electricity-Electronics (R-111)	10.44	4.57	5.60	2.80
Mechanics (R-112)	13.38	3.32	8.34	3.08
Home Economics (R-114)	9.06	2.95	13.40	3.24
Part I Total (R-190)	153.18	38.07	131.57	33.74
Aptitude and Achievement Tests				
Memory for Sentences (R-211)	8.68	3.05	9.44	3.12
Memory for Words (R-212)	11.32	5.35	13.40	5.75
Disguised Words (R-220)	15.61	7.08	17.39	7.08
English Total (R-230)	82.59	13.75	88.73	12.28
Word Function (R-240)	10.50	5.37	12.10	5.76
Reading Comprehension (R-250)	32.94	10.56	33.42	9.84
Mechanical Reasoning (R-270)	13.40	4.07	8.85	3.67
Visualization in 2 Dimensions (R-281)	14.42	5.72	11.95	5.63
Visualization in 3 Dimensions (R-282)	9.74	3.46	8.48	3.14
Abstract Reasoning (R-290)	9.59	3.00	9.25	2.97
Mathematics I (R-311)	9.75	3.64	8.76	3.57
Mathematics II (R-312)	12.31	5.66	10.29	4.85
Mathematics III (R-333)	4.46	3.12	3.16	2.37
Creativity (R-260)	10.18	4.25	9.22	3.90
Arithmetic Computation (F-410)	31.36	20.44	33.84	17.40
Table Reading (F-420)	11.10	11.05	11.83	8.39
Clerical Checking (F-430)	25.68	19.97	31.76	18.42
Object Inspection (F-440)	22.10	8.40	23.04	7.63
Interest Inventory Scales				
Physical Science	33.04	13.03	19.34	12.03
Literary-Linguistic	28.31	12.16	33.14	13.63
Office Work	9.54	5.36	14.86	6.32
Mechanical-Technical	29.26	11.73	12.13	9.22

[a] The samples included are males and females tested in 1960 and included on the Project TALENT master tape in 1963. The means and standard deviations are slightly different from those reported in Table 3-1 on the basis of large subsamples.

TABLE 13-3

Mean Standard Measures of Males in 19 Selected Occupational Groups
(Based on Means and Standard Deviations of All Twelfth-Grade Males Tested in 1960)

Occupational Group[a]	Aptitude Composites					Information Tests							Apt. & Achievement Tests				
	Academic (C-002)	Verbal (C-003)	Quant. (C-004)	Technical (C-005)	Scientific (C-006)	Literature (R-103)	Phys.Sci. (R-107)	Bio.Sci. (R-108)	Elec-Elec. (R-111)	Mechanics (R-112)	Home Econ. (R-114)	Pt.I Total (R-190)	Me.for Sen. (R-211)	Me.for Wds. (R-212)	Disg.Words (R-220)	Eng.Total (R-230)	Wd.Function (R-240)
	Mean Standard Measures																
Medical or lab. technician, etc.	.36	.42	.26	.38	.40	.37	.34	.43	.35	.32	.56	.47	.35	.16	.09	.34	.15
Machine-shop worker or repairman, etc.	-.16	-.14	-.15	.02	-.10	-.22	-.13	-.15	.08	.23	.11	-.10	.02	-.07	-.17	-.12	-.17
Electrician, radio-TV repairman, etc.	.15	.08	.16	.56	.35	.01	.30	.23	.70	.51	.26	.29	.07	.05	-.01	.02	-.03
Mechanic (auto, etc.)	-.12	-.13	-.16	.27	.05	-.19	-.05	.00	.37	.51	.06	.01	.01	-.08	-.11	-.14	-.16
Commercial artist, recreation worker, etc.	.30	.30	.31	.33	.33	.36	.38	.23	.33	.14	.26	.38	.12	.29	.11	.22	.37
Office clerks, secretaries, etc.	.14	.24	.01	-.06	.04	.21	.00	.10	-.07	-.18	.13	.07	.03	.06	.15	.22	.00
Salesclerks, checkers, etc.	.04	.05	-.03	.04	.05	.01	-.01	.02	.00	.12	.03	.02	.02	-.05	.02	.06	-.02
Bookkeeper, cashier, stat. clerk, etc.	.23	.29	.07	-.07	.09	.26	.05	.01	-.07	-.32	.12	.09	.25	.04	.19	.28	.16
Tel.operator, stock clerk, office boy, etc.	-.06	-.04	-.14	-.08	-.06	-.01	-.08	-.09	-.04	-.05	-.04	-.07	.01	-.10	-.04	-.06	-.15
Cook, baker, meat-cutter, etc.	-.27	-.26	-.30	-.13	-.19	-.15	-.14	-.03	-.16	-.02	.08	-.16	.04	-.22	-.13	-.30	-.18
Waiter, dishwasher, bus boy, etc.	-.28	-.26	-.19	-.37	-.31	-.22	-.28	-.18	-.23	-.37	.04	-.34	.12	-.06	-.21	-.18	-.17
Tailor, leather worker, etc.	-.64	-.52	-.66	-.49	-.53	-.43	-.57	-.21	-.47	-.60	-.46	-.61	.20	-.20	-.38	-.52	-.13
Gas-station attendant.	-.20	-.22	-.26	.00	-.10	-.29	-.16	-.13	-.01	.27	-.05	-.15	-.14	-.22	-.07	-.18	-.18
Carpenter, metal worker, painter, etc.	-.23	-.24	-.26	-.09	-.16	-.31	-.21	-.05	-.07	.08	.03	-.19	-.03	-.09	-.18	-.18	-.18
Earth-moving equipment operator.	-.32	-.35	-.26	-.24	-.31	-.53	-.41	-.24	-.35	.20	-.18	-.35	-.04	-.23	-.21	-.21	-.36
Driver.	-.17	-.17	-.23	-.07	-.14	-.19	-.15	.00	-.10	.06	-.03	-.15	-.02	-.09	-.18	-.12	-.16
Farm hand, gardener, logger, etc.	-.29	-.32	-.26	-.11	-.24	-.45	-.23	-.08	-.15	.09	-.07	-.26	-.03	-.14	-.39	-.23	-.25
Janitor, porter, etc.	-.21	-.24	-.13	-.21	-.25	-.25	-.04	-.10	-.10	-.30	-.24	-.24	-.02	.01	-.13	-.19	-.09
Unskilled laborer, factory worker, etc.	-.20	-.20	-.22	-.13	-.17	-.22	-.20	-.13	-.10	.01	-.04	-.18	-.03	-.14	-.17	-.16	-.16

TABLE 13-3 (continued)

Occupational Group[a]	Aptitude and Achievement Tests													Int. Inventory Scales			
	Read. Comp. (R-250)	Mech. Reas. (R-270)	Vis. 2 Dim. (R-281)	Vis. 3 Dim. (R-282)	Abst. Reas. (R-290)	Math. I (R-311)	Math. II (R-312)	Math. III (R-333)	Creativity (R-260)	Arith. Comp. (F-410)	Table Read. (F-420)	Cler. Check. (F-430)	Obj. Insp. (F-440)	Phys. Sci.	Lit.-Ling.	Office Wrk.	Mech-Tech.
	Mean Standard Measures																
Medical or lab. technician, etc.	.32	.07	.09	.00	.23	.41	.10	.27	.40	.11	.18	-.01	-.12	.26	.19	-.28	.04
Machine-shop worker or repairman, etc.	-.19	.05	.14	.12	-.15	-.05	-.14	-.12	-.04	.00	.15	-.09	.15	-.03	-.32	-.14	.49
Electrician, radio-TV repairman, etc.	.11	.44	.19	.33	.15	.20	.13	.09	.36	.04	.06	-.06	.06	.28	-.27	-.00	.47
Mechanic (auto, etc.)	-.15	.32	.20	.22	.10	-.03	-.14	-.19	.15	-.11	.02	-.03	.09	-.14	-.38	-.10	.51
Commercial artist, recreation worker, etc.	.23	.19	.11	.25	.17	.15	.31	.25	.30	-.06	.04	.09	.18	.23	.34	-.04	-.17
Office clerks, secretaries, etc.	.15	-.07	-.06	.00	.10	.11	.01	-.08	.04	.09	.21	.16	.09	-.15	.10	.33	-.30
Salesclerks, checkers, etc.	.06	.05	.10	.02	.07	.06	-.02	-.09	.10	.10	.08	-.01	.02	-.07	.03	.15	.00
Bookkeeper, casher, stat, clerk, etc.	.28	-.08	-.04	.05	.18	.15	.08	-.04	.06	.20	.09	.13	.08	-.10	.13	.31	-.26
Tel. operator, stock clerk, office boy, etc.	.01	-.07	.01	-.06	.00	-.03	-.14	-.17	-.01	.01	.08	.01	.07	-.09	.00	.07	.02
Cook, baker, meat-cutter, etc.	-.12	-.05	-.11	-.02	-.16	-.27	-.27	-.26	-.03	-.19	-.08	.04	.04	-.18	-.00	.16	-.01
Waiter, dishwasher, bus boy, etc.	-.42	-.40	-.14	-.19	-.29	-.10	-.17	-.18	-.17	-.19	-.25	-.26	-.22	.01	-.27	.18	.04
Tailor, leather worker, etc.	-.64	.01	.34	-.16	-.32	-.36	-.74	-.62	-.12	.33	.20	-.16	.22	-.52	-.47	-.26	-.09
Gas-station attendant.	-.13	.08	.02	.06	-.04	-.15	-.25	-.25	.03	-.15	.04	-.02	.00	-.17	-.26	.06	.36
Carpenter, metal worker, painter, etc.	-.19	-.01	.06	.04	-.08	-.14	-.27	-.23	-.04	-.11	.01	-.08	.03	.01	-.06	.12	.36
Earth-moving equipment operator.	-.37	-.04	-.08	-.23	-.42	-.02	-.31	-.14	-.24	-.14	.04	-.03	.01	-.02	-.16	.14	.40
Driver.	-.08	-.01	-.05	-.07	-.07	-.07	-.24	-.23	-.12	-.04	.00	-.17	-.07	-.13	-.25	.00	.14
Farm hand, gardener, logger, etc.	-.34	.08	.03	-.01	-.12	-.10	-.24	-.24	-.21	-.16	-.17	-.32	-.25	-.30	-.46	-.02	.33
Janitor, porter, etc.	-.20	-.30	-.03	-.20	-.21	-.19	-.10	-.12	-.29	-.03	-.07	.20	.14	.04	-.14	.00	.00
Unskilled laborer, factory worker, etc.	-.16	-.07	.01	-.06	-.09	-.14	-.20	-.24	-.09	-.10	-.02	-.02	.01	-.12	-.20	.12	.24

[a] The actual number of cases in each occupational group is shown in Figure 13-3.

the aptitude, information, and achievement tests, but they are somewhat below average on speeded clerical tasks and no better than average on three-dimensional visualization. Their interests are highest in physical science and lowest in office work. Commercial artists and recreation workers have a pattern of scores somewhat similar to that of medical or laboratory technicians. These two groups included boys of greater-than-average intellectual ability.

To anyone who has ever had his automobile repaired, the pattern of scores of the group of 265 mechanics will be of interest. The groups tended to be slightly below the average of all twelfth-grade boys in academic, verbal, and quantitative aptitude. But their knowledge of mechanics (R-112), mechanical reasoning ability (R-270) and spatial visualization (R-281 and R-282) is above average.

Table 13-4 shows standard measures for groups of twelfth-grade girls analogous to those for groups of boys shown in Table 13-3. In verbal and quantitative aptitude (Composites C-003 and C-004), only two groups of girls--those who held full-time jobs as medical and laboratory technicians or as commercial artists, recreation workers, etc.--obtained average scores on the aptitude, information, and achievement tests that are considerably above the means for all twelfth-grade girls tested in 1960 and included on the Project TALENT master tape in 1963. Members of three occupational groups--office clerks, secretaries, etc.; bookkeepers, cashiers, etc.; and telephone operators, stock clerks, etc.--obtained average scores close to the mean of all twelfth-grade girls. The remaining occupational groups tended to be below the average of all twelfth-grade girls on most of the variables.

The female medical and laboratory technicians, like their male counterparts, tend to obtain high scores on most of the cognitive tests, but to be close to the average of all twelfth-grade girls in speeded clerical and perceptual tasks. This occupational group obtained very high interest-inventory scores in Physical Science and very low interest-inventory scores in Office Work. An even lower average interest score in Office Work was obtained by the 78 girls in the group of commercial artists, recreation workers, etc.

The pattern of scores of the 3,833 girls who held jobs as office clerks, secretaries, typists, etc. in May 1961 is of special interest because of the large number of cases in this category. Their average scores do not differ by much from the mean of the entire group of twelfth-grade girls who were tested in 1960. Their highest scores were in Office-Work interests, Disguised Words (R-220) and English (R-230); their lowest scores were in mathematics achievement and interest in Physical Science.

A comparison of the patterns of scores of boys and girls in various groups suggests that boys in several of the selected occupational groups are higher relative to the mean of all twelfth-grade boys than are girls relative to the mean of all twelfth-grade girls. For example, the average standard measure in academic aptitude (C-002) for

TABLE 13-4

Mean Standard Measures of Females in 12 Selected Occupational Groups
(Based on Means and Standard Deviations of All Twelfth-Grade Females Tested in 1960)

Occupational Group[a/]	Aptitude Composites					Information Tests							Apt. & Achievement Tests				
	Academic (C-002)	Verbal (C-003)	Quantitative (C-004)	Technical (C-005)	Scientific (C-006)	Literature (R-102)	Phys. Sci. (R-107)	Bio. Sci. (R-108)	Elec.-Elec. (R-111)	Mechanics (R-112)	Home Econ. (R-114)	Pt. I Total (R-190)	Me. for Sent. (R-211)	Me. for Word. (R-212)	Disg. Words (R-220)	Eng. Total (R-230)	Wrd.Function (R-240)
	Mean Standard Measures																
Medical or lab. technician, etc.	.39	.31	.29	.58	.50	.23	.49	.45	.30	.42	.34	.48	.12	.15	.18	.22	.39
Commercial artist, recreation worker, etc.	.49	.40	.60	.50	.52	.36	.45	.44	.14	.22	.02	.52	.16	.24	.19	.27	.46
Office clerk, secretary, typist, etc.	.05	.12	-.16	-.09	.00	-.01	-.16	-.09	-.05	-.02	.07	-.04	.02	.05	.21	.16	.01
Salesclerk, checker, etc.	-.18	-.17	-.20	-.07	-.12	-.14	-.15	-.17	.01	.05	.08	-.12	-.08	-.22	-.07	-.16	-.23
Bookkeeper, cashier, stat. clerk, etc.	.05	.06	-.06	-.01	.04	-.03	-.09	-.09	.03	.08	.12	-.01	.04	.01	.05	.09	.02
Tel. operator, stock clerk, etc.	-.02	.02	-.15	-.02	-.03	-.04	-.12	-.08	-.05	.07	.11	-.04	.01	-.02	.02	.04	-.10
Cook, baker, etc.	-.31	-.33	-.18	-.20	-.29	-.37	-.23	-.21	-.10	.01	-.14	-.31	.03	-.22	-.27	-.25	-.22
Waitress, dishwasher, etc.	-.04	-.12	.04	.04	.02	-.05	.07	-.05	.11	.04	.13	-.00	.05	-.10	-.17	-.14	-.10
Seamstress, leather worker, etc.	-.61	-.54	-.49	-.38	-.53	-.43	-.28	-.44	-.05	-.11	-.31	-.50	-.06	-.73	-.72	-.45	-.48
Unskilled laborer, factory worker, etc.	-.52	-.51	-.43	-.31	-.45	-.44	-.31	-.29	-.24	-.05	-.20	-.44	-.14	-.31	-.32	-.42	-.37
Hairdresser, beautician, etc.	-.44	-.40	-.46	-.23	-.36	-.42	-.27	-.19	-.14	.08	.07	-.34	-.21	-.24	-.40	-.34	-.35
Baby sitter, household worker, etc.	-.92	-.95	-.64	-.58	-.82	-.70	-.48	-.46	-.35	-.36	-.44	-.76	-.27	-.50	-.81	-.86	-.58

TABLE 13-4 (continued)

Occupational Group[a]	Aptitude and Achievement Tests													Int. Inventory Scales			
	Read. Comp. (R-250)	Mech. Reas. (R-270)	Vis. 2 Dim. (R-281)	Vis. 3 Dim. (R-282)	Abst. Reas. (R-290)	Math. I (R-311)	Math. II (R-312)	Math. III (R-333)	Creativity (R-260)	Arith. Comp. (F-410)	Table Read. (F-420)	Cler. Check. (F-430)	Obj. Insp. (F-440)	Phys. Sci.	Lit.-Ling.	Office Wrk.	Mech.-Tech.
	Mean Standard Measures																
Medical or lab. technician, etc.	.43	.42	.03	.21	.27	.25	.28	.04	.45	.08	-.04	.02	.08	.79	.28	-.21	.39
Commercial artist, recreation worker, etc.	.39	.54	.11	.48	.33	.44	.50	.55	.24	.26	.14	-.10	.19	.23	.37	-.80	-.01
Office clerk, secretary, typist, etc.	.10	-.01	.02	.01	.11	.07	-.17	-.21	.09	.15	.08	.14	.06	-.17	-.10	.37	-.07
Salesclerk, checker, etc.	-.16	-.03	-.02	-.02	-.02	-.08	-.20	-.20	-.03	-.04	.01	-.03	.02	-.15	-.20	.00	.00
Bookkeeper, cashier, stat.clerk, etc.	.07	.04	.15	.11	.12	.16	-.09	-.14	.07	.21	.12	.11	.09	-.12	-.15	.33	-.02
Tel. operator, stock clerk, etc.	.05	.08	.09	.06	.02	-.01	-.16	-.12	.03	.01	.07	.04	.03	-.14	-.12	.16	.03
Cook, baker, etc.	-.37	-.16	-.17	-.18	-.30	-.22	-.16	-.13	-.23	-.36	-.08	.05	-.07	.23	.03	.28	.41
Waitress, dishwasher, etc.	-.03	.02	-.04	.10	.08	.07	.02	.06	-.02	.01	-.14	-.10	-.04	-.06	-.16	-.15	.06
Seamstress, leather worker, etc.	-.67	-.51	-.11	-.10	-.42	-.39	-.48	-.25	-.30	.02	-.06	-.34	-.25	-.27	-.43	.44	-.07
Unskilled laborer, factory worker, etc.	-.48	-.28	-.16	-.13	-.46	-.40	-.38	-.30	-.24	-.20	.00	-.02	-.09	-.09	-.12	.27	.18
Hairdresser, beautician, etc.	-.36	-.22	-.16	-.12	-.28	-.32	-.43	-.35	-.16	-.21	-.03	.04	.06	-.16	-.31	-.07	.18
Baby sitter, household worker, etc.	-.86	-.54	-.16	-.43	-.72	-.66	-.60	-.40	-.63	-.79	-.23	-.35	-.28	.02	-.04	.20	.28

[a] The actual numbers of females in each occupational group were as follows (reading in order from top to bottom): 58; 78; 3,833; 414; 1,006; 859; 72; 261; 37; 326; 116; and 169.

male office clerks, secretaries, etc. was .30 while for females it was .05. The converse appears in the case of commercial artists, recreation workers, etc. For males, the average standard measure of this group in academic aptitude was .30; for females, it was .49. In general, there appears to be greater variation in the pattern of test scores within an occupational group among boys than among girls. However, there are wide variations among both boys and girls from one occupational group to another.

In the interpretation of the data it must be kept in mind that respondents to the mail questionnaire tended to have higher academic aptitude than nonrespondents. Consequently, the average scores of the occupational groups shown in Tables 13-3 and 13-4 are probably higher than they would be if all those to whom questionnaires were mailed had filled them out and returned them. The average scores of occupational groups that included the largest proportions of examinees in the lower half of the academic-aptitude distribution are most inflated by the selective factors associated with responding to the mail questionnaire.

Comparison of Academic and Technical Aptitude Among Male Respondents in 19 Selected Occupational Groups

Figure 13-1 shows the relative levels of academic aptitude (C-002) and technical aptitude (C-005) in groups of twelfth-grade boys who held full-time jobs in May 1961 in 19 selected occupations. The occupational groups and the numbers of boys in each group are the same as in Figure 13-3.

For several occupational groups there are wide differences between relative levels of standard scores in academic and technical aptitude. For the following three groups, the technical-aptitude standard scores are markedly higher: electricians, radio-TV repairmen, etc.; mechanics; and gas-station attendants. Conversely, in the groups of office clerks, secretaries, etc. and of bookkeepers, cashiers, etc. the average standard scores in academic aptitude were considerably higher than in technical aptitude.

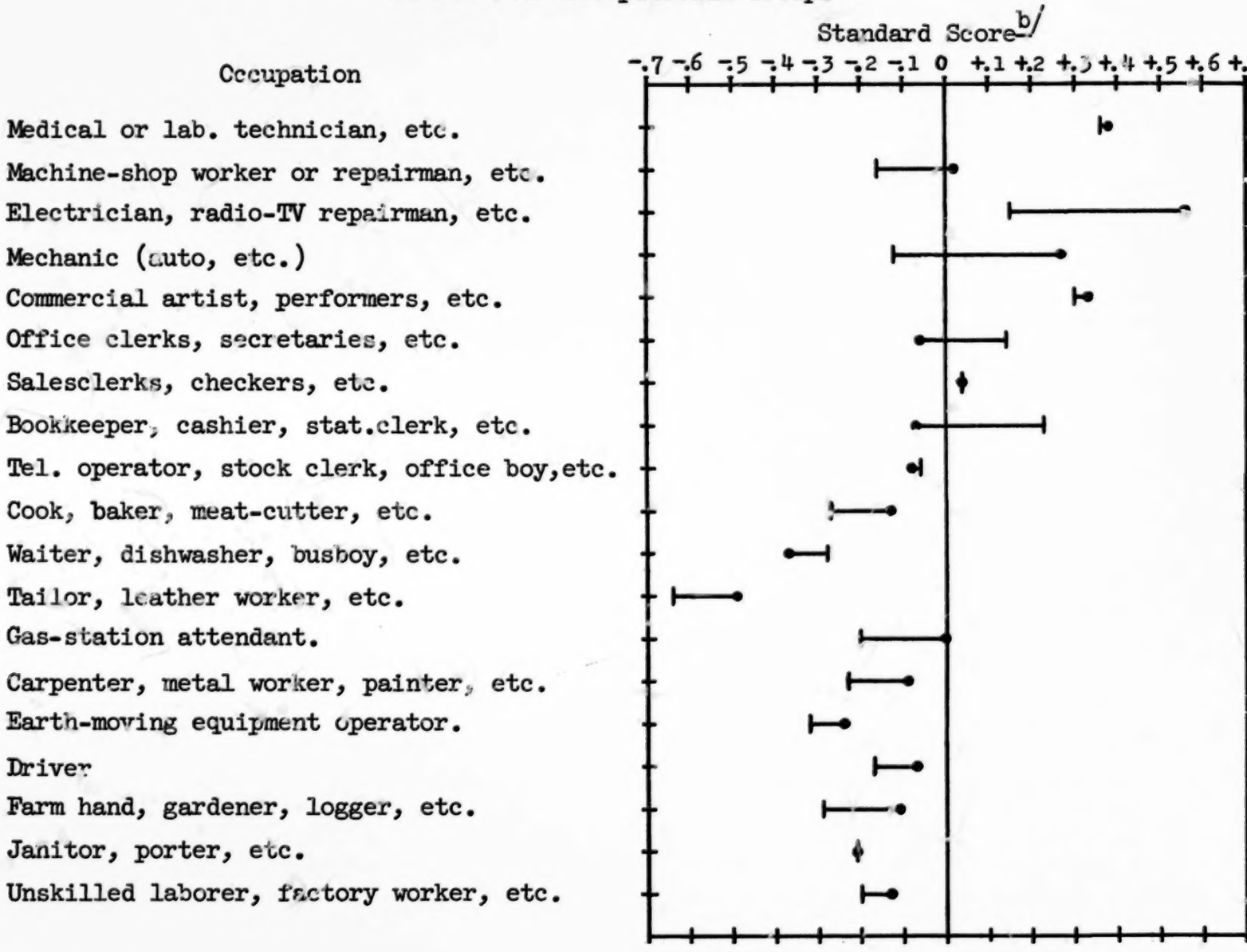
Comparison of Average Information-Test Scores in Various Educational and Vocational Groups

Figure 13-2 shows the average raw scores obtained in March and April 1960 on Part I of the Project TALENT Information Test (R-190) by various groups of boys who responded to the 1961 mail questionnaire. Part I of this test is made up of 252 items measuring a wide range of general information, with some emphasis on mathematical and scientific topics. Its composition is given on page B-2.

The first column at the left shows the average raw score of twelfth-grade boys who responded to the 1961 mail questionnaire and who entered highly selective private colleges. Their average score corresponds to a

FIGURE 13-1

Relative Levels of Academic Aptitude and Technical Aptitude for Male Respondents to the 1961 Mail Questionnaire in Selected Occupational Groups[a]

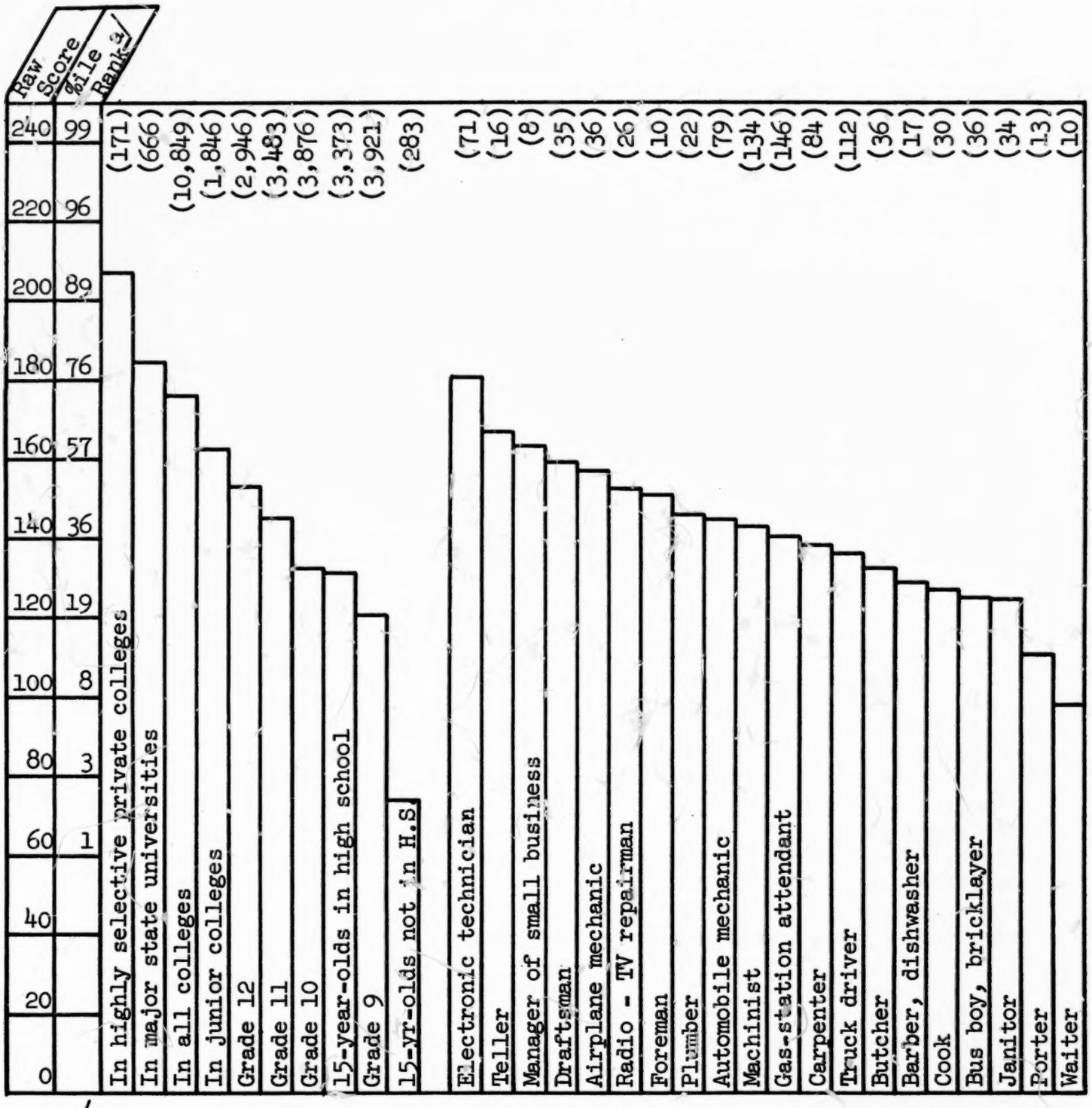

Standard Score[b]
-.7 -.6 -.5 -.4 -.3 -.2 -.1 0 +.1 +.2 +.3 +.4 +.5 +.6 +.
Occupation
Medical or lab. technician, etc.
Machine-shop worker or repairman, etc.
Electrician, radio-TV repairman, etc.
Mechanic (auto, etc.)
Commercial artist, performers, etc.
Office clerks, secretaries, etc.
Salesclerks, checkers, etc.
Bookkeeper, cashier, stat.clerk, etc.
Tel. operator, stock clerk, office boy,etc.
Cook, baker, meat-cutter, etc.
Waiter, dishwasher, busboy, etc.
Tailor, leather worker, etc.
Gas-station attendant.
Carpenter, metal worker, painter, etc.
Earth-moving equipment operator.
Driver
Farm hand, gardener, logger, etc.
Janitor, porter, etc.
Unskilled laborer, factory worker, etc.

[a] Academic Aptitude (C-002) is represented by the short vertical line for each occupational group. Technical Aptitude (C-005) is represented by the dot. A horizontal line connects each pair.

[b] The standard scores are based on the distributions of raw scores on Academic Aptitude (C-002) and Technical Aptitude (C-005), respectively of all males tested in March and April 1960 and included on the Project TALENT master tape in 1963.

FIGURE 13-2

Mean Scores on Part I of the Project TALENT Information Test (R-190) in Various Groups of Boys Who Responded to the 1961 Mail Questionnaire; in Samples of All Boys Tested in 1960 in Grades 9, 10, 11, and 12; and in a Sample of 15-Year-Olds



a/ In distribution of all males in grade 12 tested in March and April 1960.

Note.--The actual number of boys in each group is shown in parentheses in the figure.

percentile rank of about 90 in the distribution of scores of all boys in grade 12 who took this test and whose scores were included on the Project TALENT master tape in 1963. This is shown by the column at the left-hand side of the figure that presents percentile ranks.

The data for 15-year-old boys who were not attending school when they were tested in 1960 are interesting. The typical 15-year-old boy is in grade 10; a comparison of the heights of the columns showing the average scores of 15-year-old boys who were in school and those who were not in school shows clearly the extent to which dropouts from school up to that age were associated with lack of general information. The latter tends to reflect degree of verbal intelligence and level of intellectual curiosity and interest. It should be noted that 15-year-olds who had dropped out of school obtained an average score far lower than that of any one of the occupational groups shown.

The columns toward the right-hand side of the figure show the average Information-Test scores for several groups of boys who had not attended college by May 1961 but who, at that time, held full-time jobs in a variety of specific occupations. These average scores range from 181 for electronic technicians down to 98 for waiters. The average male waiter who responded to the 1961 mail questionnaire displayed about as much information (of the type measured by the test employed) as an individual at approximately the 7th percentile of all twelfth-grade boys. The average electronic technician who answered the 1961 mail questionnaire obtained a score in general information almost as high as that obtained by the average of boys who entered major state universities within a year of their graduation from high school in 1960.

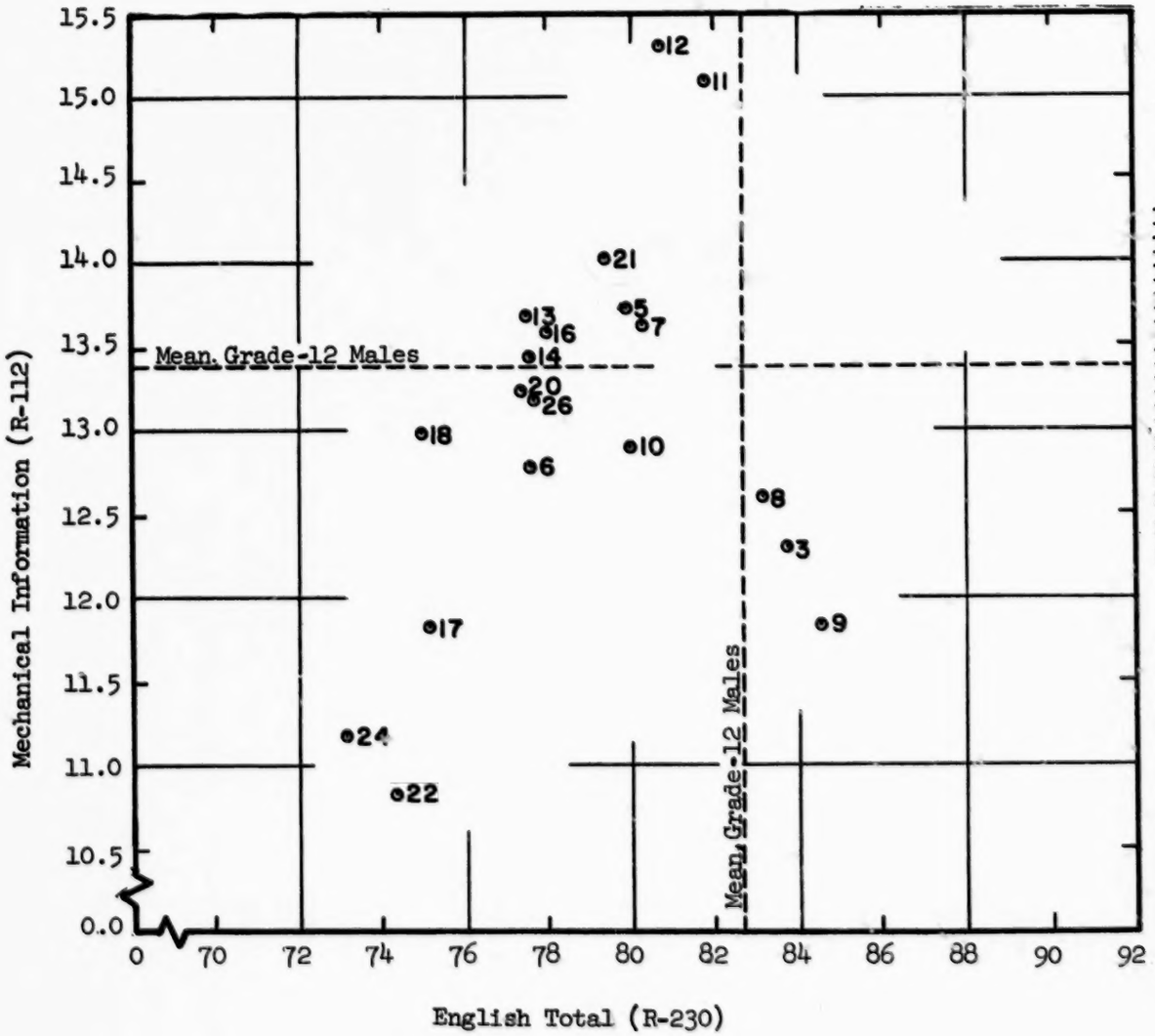
Comparison of English and Mechanical-Information Scores of Twelfth-Grade Boys Who Entered Selected Occupations

Figure 13-3 shows by means of coordinate points the relative achievement of twelfth-grade boys in two fields of achievement that are quite different; namely English and mechanical information. The figure simply illustrates graphically some of the data already presented in a different form in Table 13-3. Occupational groups that are relatively lower in mechanical information than in English are numbers 3, 8, and 9. Reference to the table at the right-hand side of the figure shows that these are groups of medical and laboratory technicians; office clerks, secretaries, etc.; and bookkeepers, cashiers, statistical clerks, etc.

Groups 11 and 12, on the other hand, are relatively lower in English than they are in mechanical information. These groups include workers like electricians, radio-TV repairmen, and auto mechanics. Groups like 22 and 24 obtained very low scores in both English and mechanical information. No groups had average scores that were high in both fields.

FIGURE 13-3

Plot of Mean Scores in English and Mechanical Information Obtained by Twelfth-Grade Males Who Did Not Enter College Within One Year of Graduation From High School and Who Entered Selected Occupational Groups[a]



Occupational Group	N
3. Medical or laboratory technician, etc.	31
5. Machine-shop worker or repairman, etc.	191
6. Commercial artist, recreation worker, etc.	134
7. Salesclerk, checker, etc.	407
8. Office clerk, secretary, etc.	285
9. Bookkeeper, cashier, stat. clerk, etc.	186
10. Tel. oper., stock clerk, office boy, etc.	822
11. Electrician, radio-TV repairman, etc.	211
12. Mechanic (auto, etc.)	265
13. Earth-moving-equipment operator, etc.	75
14. Carpenter, metal worker, painter, etc.	471
16. Driver	220
17. Tailor, leather worker, etc.	13
18. Cook, baker, meat cutter, etc.	176
20. Farmhand, gardener, logger, etc.	432
21. Gas station attendant	205
22. Waiter, dishwasher, bus boy, etc.	86
24. Janitor, porter, etc.	102
26. Unskilled laborer, factory worker, etc.	744

a/Data for this figure were taken from Table 13-3.

Summary

About 36.6 per cent of the boys and 36.9 per cent of the girls who responded to the 1961 mail questionnaire reported that they held full-time jobs in May 1961. A large percentage of these respondents had never attended college up to that time; others had entered college and dropped out; still others were attending college while holding a full-time job.

Of boys who had entered college and dropped out or who were still attending college, 12 per cent held jobs as unskilled laborers. About 12 per cent held clerical or stock-checking jobs of various types. Another 10 per cent were salesmen, principally sales clerks. About 9 per cent worked as skilled laborers, such as carpenters and metal workers. Jobs held by most of the remaining boys in this group are listed in Table 13-1.

One year after graduation from high school, 14 per cent of the boys who had not attended college were members of the armed forces. About 12.6 per cent held jobs as unskilled laborers, 11.4 per cent were in clerical and stock-checking jobs of various types, and 11.2 per cent were electricians, mechanics, or machine-tool workers.

About 40 per cent of the girls who entered college and dropped out or who were still in college when they filled out the 1961 mail questionnaire held jobs as secretaries, typists, etc.; 9.4 per cent were waitresses, hairdressers, etc.; 9.1 per cent were telephone operators, receptionists, etc.; 9.1 per cent were bookkeepers, cashiers, etc.; and 8.3 per cent were in various kinds of selling jobs, mainly as salesgirls. Of the girls who had never attended college, almost half held office jobs as secretaries, typists, etc.; 12.1 per cent were bookkeepers, cashiers, etc.; and 6.2 per cent were waitresses, hairdressers, etc.

Interesting patterns of abilities were reflected in the average test scores of groups of boys and of girls who responded to the 1961 mail questionnaire and who held various types of full-time jobs one year after their graduation from high school. The tests on which these scores were based were administered in the spring of 1960 while the respondents were in grade 12. As would be expected, the groups highest in verbal aptitude and reading comprehension included white-collar occupations, medical and laboratory technicians, commercial artists, and recreation workers (probably because these full-time jobs are often held temporarily by college students).

Men in occupations like the operation of earth-moving equipment and in sewing and leather work obtained very low scores in verbal aptitude, reading comprehension, and knowledge of literature.

The pattern of scores of female office workers like clerks, secretaries, and typists does not deviate a great deal from the pattern formed by the mean scores of the entire group of girls tested in 1960.

In technical aptitude and some visualization skills, some of the groups in which workers had low scores in verbal aptitude and reading comprehension performed very well. For example, boys who held jobs in leather working and sewing obtained relatively high scores in two-dimensional visualization. Men in jobs such as electrician and radio-TV repairman obtained very high scores in technical aptitude. Data presented in Figure 13-1 show that in the following occupational groups, boys are relatively much higher in technical aptitude than in academic aptitude: electricians, radio-TV repairmen, etc.; mechanics; and gas-station attendants. The reverse is true for: office clerks, secretaries, etc.; and for bookkeepers, cashiers, etc.

A comparison of the patterns of boys and girls suggests that boys in several of the occupational groups for which data are presented in Tables 13-3 and 13-4 were higher relative to the mean of all twelfth-grade boys than were girls relative to the mean of all twelfth-grade girls. Also, there appears to be somewhat greater variation within the pattern of test scores for an occupational group among boys than among girls.

In the interpretation of data in this chapter it must be kept in mind that, since respondents to the mail questionnaire tended to have higher academic-aptitude scores than nonrespondents, the average standard measures shown in Tables 13-3 and 13-4 are probably higher than they would be if all those to whom questionnaires were mailed had replied. Furthermore, the amount of inflation of the average standard measures is probably not the same for boys and girls in various occupations. The inflation tends to be greatest in occupational groups in which workers in the lower half of the aptitude distribution are concentrated.

Chapter 14

SUMMARY AND CONCLUSIONS

The composition of the sample of schools and of students used in Project TALENT has been discussed in preceding reports of this study.[1] Consideration of the samples used for computing data used in this report lead to the conclusion that they are adequate or more than adequate for their purposes. The same conclusion has been reached regarding the adequacy of the tests used in the project.

Reliability coefficients for scores on the unspeeded, or essentially unspeeded, tests in the Project TALENT battery have been obtained, most of them by the Kuder-Richardson formulas. For a few speeded tests, reliability estimates were based on scores from separately timed halves. The data indicate that the principal achievement and aptitude tests are more than adequately reliable for the types of measurement for which they were designed. Likewise, almost all of the short experimental tests included in the battery proved to be sufficiently reliable to serve their purposes.

Inspection of the intercorrelations of the tests indicates that almost all of them include at least a core of unique variance. This indicates that the battery is efficient in the sense that it measures a wide variety of variables. Among the common factors tentatively identified as measured by the aptitude variables were:

General verbal ability,
Reasoning,
Rote memorization,
Spatial visualization,
Visual perception,

---

[1] Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U.S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office; University of Pittsburgh, 1960. Chapter III.

Shaycoft, M. F.; Dailey, J. T.; Orr, D. B.; Neyman, C. A., Jr.; and Sherman, S. E. Studies of a Complete Age Group--Age 15. Technical Report to the U.S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1963. Pp. 5-8.

Speed of response,
Speed of decision,
Information in the mechanical-electrical-electronic domain.

At least three specific factors appeared:

Ingenuity,
Verbal fluency,
Sensitivity to grammatical structure.

The data indicate that the factor patterns are similar for both boys and girls.

Percentile norms for boys, for girls, and for both sexes combined in each of grades 9, 10, 11, and 12 have been obtained for 68 tests and 12 a priori composite scores in the Project TALENT battery. These have been presented in Chapter 2.

Some findings from the test data follow:

1. Twenty to 30 per cent of students in grade 9 know more about many subject-matter fields than does the average student in grade 12. Variability within grades is greater than variability between grades.

2. The top 5 per cent of students in a grade can learn the English meanings of at least twice as many foreign words as the average student in the same period of time.

3. Sectional differences in achievement are noticeable. Students in the Northeast tend to be above the national average and students in the Southeast below that average. However, differences within each section are much more striking.

4. Less than half of twelfth-grade students understand the subtler ideas in typical paragraphs from the writings of Sinclair Lewis, Jules Verne, or Rudyard Kipling. Much smaller percentages understand the writings of Thomas Mann or typical articles in the Atlantic Monthly and the Saturday Review.

5. The average high-school student apparently doesn't solve simple reasoning problems as well as he memorizes simple rules (like the rules of capitalization) and applies them.

6. Differences in the relative levels of information that an individual displays often reflect his pattern of interests more than his pattern of abilities.

7. Amount of formal training in an area or informal exposure to it, even if that training or exposure has not been sought by an individual, plays some part in determining the amount of information he acquires in the area.

8. Most sex differences that have been found in patterns of information reflect differences in interests. (It is recognized, of course, that there is probably considerable linkage among intrinsic ability in an area, exposure to it, and interest in it.)

9. The fact that differences in ability within grades are so great in comparison with differences between grades is a strong argument in favor of the individualization of instruction to the full extent that facilities and staff time can be made available for it.

A discussion of differential measurement in Chapter 4 points out that to identify individuals who are highly talented requires the use of a large number of specialized tests. The implications of some illustrative data for the identification of human talents are extremely important. First, the abilities of critical importance in determining performance in various courses of study and in the basic tasks demanded by a wide variety of jobs should be established. Second, highly specialized aptitude tests should be constructed to predict performance as accurately as possible in these courses of study and job tasks. Third, these tests should be of high reliability and should have intercorrelations as low as can be obtained by careful test construction without sacrifice of predictive validity. Fourth, the scores derived from these tests should be comparable in terms of some appropriate base group. The availability of such a set of aptitude measures will be of great value in identification of human talent and in educational and vocational guidance. It is hoped that it can be developed within the next five years on the basis of sound data obtained by Project TALENT.

Responses to the 394-item Student Information Blank provide a remarkable source of data regarding the backgrounds, plans, aspirations, habits, and activities of high-school students. Some highlights from the data are summarized briefly in the following paragraphs:

Student Characteristics. Students take part in a wide variety of interest groups. The most common affiliations are with groups sponsored by religious or charitable organizations. Swimming is the most popular sport with boys and girls. Boys and girls differ greatly with respect to their participation in other sports and hobbies.

Educational Experiences. Most of the students began school at the age of six and continued without interruption (other than minor illnesses) through the grades. About 48 per cent of the boys and 38 per cent of the girls enrolled in a college-preparatory program in high school. Commercial programs enrolled 7 per cent of the boys and 37 per cent of the girls, while 25 per cent of the boys and 19 per cent of the girls enrolled in a general program.

The median twelfth-grade boy reported that he studied outside of class for about 8 hours per week and the median girl reported that she studied outside of class for about 11 hours per week. Principals of high schools reported in a questionnaire that in grades 9 through 12 they expected their pupils would average about 8 1/2 hours per week of study outside class.

Educational Plans and Aspirations. About 53 per cent of the high-school senior boys and 46 per cent of the girls expected to enter college immediately after graduation; about 73 per cent of the boys and 58 per cent of the girls planned to attend college at some time; but only 53 per cent of the boys and 33 per cent of the girls expected to graduate from a four-year college. Actually, follow-up data show that about 49 per cent of the senior boys and 35 per cent of the senior girls did attend college within a year after their graduation from high school. Data regarding the students' choices of college fields of study are provided. The most popular choice for boys was engineering; for girls, it was education.

Plans for Financing College Attendance. The amounts of money that the high-school seniors who thought that they might attend college expected to spend during their freshman year for tuition, fees, books, living expenses, etc., are stated together with the expected sources of these funds. Savings, parents, and incomes from jobs are the major sources of funds for most of the examinees.

Career Plans and Aspirations. More boys expected to enter engineering than any other field. By far the largest percentage of girls expected to become secretaries, office clerks, or typists. The career expectations of examinees who expected to go to college may be more realistic than the expectations of those who did not expect to do so. There is some evidence that career expectations become more realistic as students progress from grade 9 to 12 and from grade 12 through the freshman year of college. For example, there were 17.9 per cent of the boys in the ninth-grade group who reported that they planned to enter engineering. This percentage dropped to 15.8 for boys in grade 12. Data from the follow-up study one year after graduation from high school indicated that 12.5 per cent of the boys reported that they planned to become engineers and were taking courses in preparation for this career. There was a shift in the other direction for those who indicated that they might be interested in entering the field of education. This field was chosen by 7.0 per cent of the twelfth-grade boys. However, a year later, 12.4 per cent of them reported that they were enrolled in programs in college that would prepare them to teach school.

Other Plans and Aspirations. The median incomes expected by the seniors twenty years after graduation from high school were about $11,700 for the boys and about $7,000 for the girls. These expectations far exceed the median incomes in 1960 of men and women who had completed four years of college. It may be that inflation and improving standards of living will bring median incomes closer to the level expected by the students than might at first thought seem likely. It is interesting to note that very few students expected to be wealthy, but a large majority expected to be in comfortable circumstances. Most of them expected to pay cash for purchases, except for large items like a house or a car.

The median boy expected to get married at 23; the median girl, at 21. Ninety-three per cent of the boys and 97 per cent of the girls expected to have children. The modal number expected by both boys and

girls was 3, but 7 per cent of the boys and 13 per cent of the girls expected to have five children or more.

Family and Home. The occupations of their fathers and mothers, as reported by the twelfth-grade pupils, tend to fall into the higher-level occupational categories more often than would be expected on the basis of Census data. The mothers of about 28 per cent of the students have engaged in regular full-time work and an additional 13 per cent have mothers who have done regular part-time work; the mothers of 24 per cent have done part-time work either regularly or occasionally.

Data reported by the students about the education received by their parents show that the latter were better educated than the American population between the ages of 35 and 59 (roughly the age range for parents of the Project TALENT sample). This may be accounted for in part by the fact that twelfth-grade students tend to come from families with better-than-average educational levels.

About three-fourths of the students reported living in one-family houses owned (or being purchased) by the family. They estimated the value of the median house as $13,500. Among those living in rented houses or apartments, the median rental was estimated as $65 per month. A description of some of the family possessions and of the equipment in the home has been provided. The median family income in 1959 was estimated to be about $7,000.

Student Background and Aspirations in Relation to Aptitude Level. High-aptitude students contrasted with low-aptitude students, grouped in ten categories of level of academic aptitude, tend to have started school earlier, to have enrolled in college-preparatory courses (such as mathematics and foreign languages) to a greater extent, to have spent more hours per week in studying, to be members of the more prosperous and better educated families, and to have aspirations for obtaining more education.

It is interesting to note that many students in the lower half of the aptitude distribution expected to attend college and obtain at least a bachelor's degree. In fact, 16 per cent of the boys and 12 per cent of the girls in the lowest one-tenth of the aptitude distribution had this expectation. Even more striking is the fact that about 26 per cent of the students in this category reported that their parents wanted them to obtain college degrees. In general, it appears that the educational aspirations of twelfth-grade pupils may be more realistic than their parents' expectations for them in this respect.

The interests of students in the Project TALENT sample were tested by an Interest Inventory made up of 205 items. The occupations preferred by boys and by girls in grade 12 differ widely. Boys like aviation, professional athletics, engineering, science, service in the armed forces, and business. Girls like social work, secretarial work and typing. They are also interested in being airline hostesses and housewives.

The boys' preferences appear to center around three themes: the masculine hero appeal, a drive for money and power, and science and technology. The girls' preferences relate to four themes: homemaking and motherhood, glamor and adventure, social service, and making a living. Changes in the occupational preferences of boys and of girls from grade 9 to grade 12 reflect an increase in sophistication with respect to the nature of the jobs and of the incomes they provide. The drive for money and power among boys increases from grade 9 through 12.

The ten activities liked the most and the least by boys and by girls in grades 9-12 have been listed. Sports are of prime interest to boys. They also want to "become millionaires" and to own their own businesses. Cultural activities do not appeal to them. Neither does clerical work. Among girls, only one sport--swimming--is a favorite activity. Unlike the boys, they are interested in clerical tasks and in helping other people. The activities they like least center around mechanical work and hard manual labor.

The intercorrelations of the 17 interest scales suggest the presence of five principal clusters: Scientific, Cultural, Mechanical-Physical Labor, Business-Sales-Office Work, and Public and Social Service.

To estimate the personality traits of students, the Project TALENT battery included a Student Activities Inventory. This was intended to measure several personality traits from data about the things students did and the way they did them.

The intercorrelations of 10 personality scales for which data have been obtained tend to be moderately lower than the probable reliability coefficients of the same variables. The Impulsiveness Scale is least correlated with the others. The scales that had the highest correlations with aptitude and achievement tests were Calmness, Confidence, and Mature Personality among boys and Culture, Social Sensitivity, and Mature Personality among girls.

Interesting relationships between school marks and scores on the personality scales were found. The Mature Personality and Leadership scores were more closely related to school marks than the other personality scores. Scores on the Impulsiveness Scale correlated .02 and -.01 among boys and girls, respectively, with a composite of self-reported school marks. It is likely that the personal characteristics of pupils who obtained high scores on the Mature Personality and Leadership Scales were more pleasing to teachers than those of pupils who obtained high scores on the Impulsiveness Scale. School marks probably reflect in part pupil-teacher relationships.

The correlations of the personality scales with the interest scales described in Chapter 6 display relationships that agree well with a priori expectations. The associations of personality traits and areas of interest may be illustrated with the following examples:

Personality Trait	An Associated Area of Interest
Sociability	Business Management
Social Sensitivity	Social Service
Impulsiveness	Public Service
Vigor	Outdoor Recreation
Calmness	Physical Science
Tidiness	Computation
Culture	Art
Leadership	Business Management
Self-Confidence	Literature-Linguistics
Mature Personality	Physical-Biological Sciences

In general, the data supply encouraging evidence regarding the construct validity of the personality scales in the Project TALENT Student Activities Inventory.

Estimates of the reliability coefficients of 26 Information-Test subscores have been shown in Chapter 8. In addition, the reliability coefficient of the variance in each subscore that is independent of total-score variance is also given. Several of these residual variances have surprisingly high reliability coefficients considering the fact that all of the subscores are short.

The interrelationships among boys and among girls of the 26 Information-Test subscores, the 17 interest scales, the 10 personality scales, and the 44 activity items suggest the presence of 10 or 11 clusters of variables, as follows:

Academic Achievement;
Mechanical and Technical Activities, Interests, and Experience;
Sports Activities and Interests;
Cultural Activities;
Household, Farming, and Gardening;
Outdoor Recreation and Activities;
Leadership;
Scientific and Mathematical Interests;
Reading;
Sociability;
Business Management and Office Work.

Girls obtain markedly higher mean scores than boys in home economics, sewing, cooking, etc.; literary and linguistic achievement and interests; clerical skills and interests; and in cultural interests and tendencies. Boys obtain much higher mean scores than girls in mechanical knowledge, skills, and interests. They also are more knowledgeable about and interested in sports, outdoor activities, science, and mathematics.

The patterns of scores of boys and of girls on information and interest tests are very similar. These and other data suggest the need for further research on the use of information scores to measure interests.

Plans for Project TALENT included provisions for follow-up studies 1, 5, 10, and 20 years after the testing program conducted in 1960 in grades 9, 10, 11, and 12. To motivate students to respond to mail questionnaires scheduled for use in follow-up studies, considerable time and thought were given to informing them about the project and its purposes and encouraging them to identify with it.

The first follow-up questionnaire was mailed in 1961 to 88,160 young men and women who had taken the Project TALENT tests as twelfth graders in the spring of 1960. After four copies of this questionnaire and several reminders had been sent to those from whom replies had not been received, 61,320 usable questionnaires were returned. A 5-percent random sample, stratified by school, of the nonrespondents was drawn and intensive efforts were made to locate these individuals and to obtain responses to selected questions on the mail questionnaire. Some usable information was obtained from all but seven of them.

Direct costs of obtaining responses to the mail questionnaire were about 59 cents per respondent; for the special questionnaire for nonrespondents to the mail questionnaire, direct costs amounted to about $7.44 per respondent. It is not wholly clear whether funds spent in an effort to obtain the maximum number of replies to mail questionnaires can be spent to better advantage for sending out additional copies of the questionnaire to nonrespondents rather than for sending reminder cards and letters to them.

Any summary of the data obtained from the mail questionnaires that were returned and from the special follow-up study is inadequate, but some of the more important findings follow. The data indicate that about 42 per cent of the high-school graduates did enter a recognized two-year or four-year college within a year after leaving high school. Of these, about 22 per cent dropped out during or at the end of the freshman year. The great majority of students dropped out to take jobs or because of financial difficulties. These two categories accounted for about 28 per cent of the dropouts. Among girls, marriage accounted for 23 per cent of the dropouts; among boys, 22 per cent reported that they had failed in their academic work. Other causes of dropout were of smaller consequence.

Choices of major fields of study show that business and commercial subjects were popular with boys and girls. Engineering was second most popular with the boys; education was by far the most popular major with the girls.

Only a negligible percentage of the girls entered active military duty but about 20 per cent of the boys did so. Finally, the data show that a far larger percentage of girls (28.0) than boys (11.3) were married a year after they had left grade 12.

Conclusions based on data provided only by the mail questionnaire cannot safely be generalized to the entire TALENT sample because of the somewhat selected nature of the respondent group with respect to

academic aptitude and family characteristics, such as socio-economic status. However, some of the major findings follow.

Only about 21 per cent of the boys and 29 per cent of the girls did not hold at least one full-time job in the year after they left grade 12. About 44 per cent of them found their first full-time job before they left high school and another 12 per cent found it in a week after leaving school. About 7 per cent of them took more than 6 months to find it. Public employment agencies do not seem to have served many of the young people. It is interesting that more girls than boys (some 60 per cent) were very well satisfied with the job they held as of May 1961, but fewer girls than boys intended to make a career of this job. It is probable that many boys and girls at this stage of their careers were holding temporary jobs, the girls until marriage came along, and the boys until they had completed their education or had decided on a likely career. The most important aspect of a job or career for both boys and girls was reported as personal interest in the work, followed by job security, and (especially for the boys) future salary and opportunity for promotion.

Of the respondents who entered college, about 37 per cent continued to live at home and another 27 per cent attended a college within 100 miles of their homes. Their college marks during the freshman year averaged a C+. The median cost of tuition fees and books was about $450 and the median cost of living expenses was about $510. The average freshman spends about 15-20 hours per week in class and reported that he spends 20 hours per week studying outside of class. The funds are supplied largely by the students' families and their own earnings and savings, but about 26 per cent of the students reported receiving funds from grants and scholarships.

Respondents to the mail questionnaire tended to have greater academic aptitude than nonrespondents and to come from families at slightly higher socio-economic levels.

About 36.6 per cent of the boys and 36.9 per cent of the girls who responded to the 1961 mail questionnaire reported that they held full-time jobs in May 1961. A large percentage of these respondents had never attended college up to that time; others had entered college and dropped out; still others were attending college while holding a full-time job.

Of boys who had entered college and dropped out or who were still attending college, 12 per cent held jobs as unskilled laborers. About 12 per cent held clerical or stock-checking jobs of various types. Another 10 per cent were salesmen, principally sales clerks. About 9 per cent worked as skilled laborers, such as carpenters and metal workers.

One year after graduation from high school, 14 per cent of the boys who had not attended college were members of the armed forces. About 12.6 per cent held jobs as unskilled laborers, 11.4 per cent were

in clerical and stock-checking jobs of various types, and 11.2 per cent were electricians, mechanics, or machine-tool workers.

About 40 per cent of the girls who entered college and dropped out or who were still in college when they filled out the 1961 mail questionnaire held jobs as secretaries, typists, etc.; 9.4 per cent were waitresses, hairdressers, etc.; 9.1 per cent were telephone operators, receptionists, etc.; 9.1 per cent were bookkeepers, cashiers, etc.; and 8.3 per cent were in various kinds of selling jobs, mainly as saleswomen. Of the girls who had never attended college, almost half held office jobs as secretaries, typists, etc.; 12.1 per cent were bookkeepers, cashiers, etc.; and 6.2 per cent were waitresses, hairdressers, etc.

Interesting patterns of abilities were reflected in the average test scores of groups of boys and of girls who responded to the 1961 mail questionnaire and who held various types of full-time jobs one year after their graduation from high school. The tests on which these scores were based were administered in the spring of 1960 while the respondents were in grade 12. As would be expected, the groups highest in verbal aptitude and reading comprehension included white-collar occupations, medical and laboratory technicians, commercial artists, and recreation workers (probably because these full-time jobs are often held temporarily by college students). Men in occupations like the operation of earth-moving equipment and in sewing and leather work obtained very low scores in verbal aptitude, reading comprehension, and knowledge of literature. The pattern of scores of female office workers like clerks, secretaries, and typists does not deviate a great deal from the pattern formed by the mean scores of the entire group of girls tested in 1960.

In technical aptitude and some visualization skills, some of the groups of workers who had low scores in verbal aptitude and reading comprehension performed very well. For example, boys who held jobs in leather working and sewing obtained relatively high scores in two-dimensional visualization. Men in jobs such as electrician and radio-TV repairman obtained very high scores in technical aptitude. In the following occupational groups, boys are relatively much higher in technical aptitude than in academic aptitude: electricians, radio-TV repairmen, etc.; mechanics; and gas-station attendants. The reverse is true for: office clerks, secretaries, etc.; and for bookkeepers, cashiers, etc.

A comparison of the patterns of boys and girls suggests that, in several of the occupational groups, boys were higher relative to the mean of all twelfth-grade boys than were girls relative to the mean of all twelfth-grade girls. Also, there appears to be somewhat greater variation within the pattern of test scores for an occupational group among boys than among girls.

It must be kept in mind that, since respondents to the mail questionnaire tended to have higher academic-aptitude scores than nonrespondents,

the patterns of scores for occupational groups were somewhat different from what they would have been if all of those to whom questionnaires were mailed had responded. In general, patterns of scores based on data from the respondents probably show "verbal" scores higher relative to "nonverbal" scores than would be the case among nonrespondents.

Data presented in Chapter 11 show that, as expected, there was a strong positive correlation between level of academic aptitude and entrance to college. Only a small percentage of high-school graduates in the top 1 per cent of the aptitude distribution did not enter college. In fact, only about 17 per cent of high-school graduates in the top quarter of the aptitude distribution did not enter college within one year of their graduation from high school. The aptitude distributions of those who entered college show that two-year-college freshmen are selected only to a small extent on academic aptitude but that four-year-college freshmen represent a group of high-school graduates who are considerably higher in average academic aptitude than twelfth graders.

The dropout rate among college freshmen varies greatly from one institution to another. In the Project TALENT sample, about 21 per cent of the boys and 24 per cent of the girls dropped out during or at the end of the freshman year. The reasons for dropping out were discussed in Chapter 10.

Responses to the 1961 mail questionnaire indicate that respondents who entered college differed significantly from those who did not enter college in several respects. They differed in their educational backgrounds and plans and in family characteristics. In general, the families of those who entered college were more highly educated, more affluent, and more interested in seeing that their children had college training.

Several other factors were positively related to entrance to college. One of the most important of these was geographic region. Among respondents to the 1961 mail questionnaire, the rate of entrance to college was highest in the Far West and Southwest and lowest in New England and the Middle East. However, data based on all school children and on the entire Project TALENT sample lead to the conclusion that the secondary schools of the Southeast and the Southwest lacked holding power in comparison with those in other parts of the United States and that opportunities for attending college were much greater in the Far West than in some other sections of the country.

It is important to note that a large percentage of the twelfth-grade pupils who responded to the 1961 mail questionnaire indicated that they were willing to take a loan to help pay their college expenses. The majority were willing to take loans of from $250 to $750 per year for this purpose.

Among college students, marked differences have been reported in the fields of specialization chosen by boys and girls and by students of both sexes at various levels of academic aptitude. Boys of high

aptitude tended to enter engineering; girls of high aptitude preferred English and literature. Boys and girls in the bottom quarter of the aptitude distribution preferred business and commerce and education, respectively.

Very large percentages of freshman boys and girls of high academic aptitude expected to obtain at least a bachelor's degree. The percentages decrease with drop in aptitude level. The percentages of a defined group of boys and girls who planned to obtain advanced degrees showed that even among students in the lowest quarter of the aptitude distribution, 37 per cent expected to obtain advanced degrees. These and other data lead to the conclusion that the young men and women who responded to the mail questionnaire and entered college within a year after leaving high school were unduly optimistic about their chances of obtaining advanced degrees.

A P P E N D I X A

SUBSAMPLES OF THE REGULAR PROJECT TALENT SAMPLE

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TABLE A-1

Composition of Various Subsamples
Drawn From the Regular Project TALENT Sample

Designation of Subsample[a]	Sampling Unit	Sampling Ratio[b]	Percentage of Reg. Sample from which Subsample was Drawn	Definition of Cases Included: All Students Whose 6-Digit Testing Number Ends with:	Definition of Cases Included: All Schools with Codes Ending in:
0	Schools	.10	100[g]		0
1	Schools	.10	100		1
2	Schools	.10	100		2
3	Schools	.10	100		3
4	Schools	.10	100		4
5	Schools	.10	100		5
6	Schools	.10	100		6
7	Schools	.10	100		7
8	Schools	.10	100		8
9	Schools	.10	100		9
A-10.0-3	Students	.10	100[g]	3	
A-04.0-25[c]	Students	.04	100	25,50,75, or 00	
A-01.0-79[c]	Students	.01	100	79	
A-01.0-25	Students	.01	100	25	
A-100.0	--	1.00	100[g]		
B-04.0(.80)-25[d]	Students	.04	80 (approx.)[e]	25,50,75, or 00	
B-01.0(.80)-25	Students	.01	80 (approx.)[e]	25	
B-01.0(.94)-25	Students	.01	94 (approx.)[f]	25	

See footnotes on next page.

Footnotes for Table A-1

a/ The prefix "A" on a subsample designation signifies an "across-the-board" sample of Project TALENT students that is about as representative of the TALENT sample as its size will permit. These subsamples are selected on the basis of terminal digits of the six-digit student testing number.

The prefix "B" on a subsample indicates that it is not fully representative of the entire TALENT sample. For instance though the sampling may be based on terminal digits of student testing number, some of the schools (not necessarily a random or representative group of them) may have been omitted from the group from which the sample was drawn.

b/ The sampling ratio is the approximate ratio of number of sampling units in the subsample to number of sampling units in that part of the sample from which the subsample was drawn.

c/ This 1-per-cent subsample was not used in the present report. Its inclusion in this table is merely for the purpose of clarifying the principle on which subsample designations are based.

d/ This is the subsample on which the tentative norms that were reported in the Counselors' Technical Manual are based. (Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Project TALENT Counselors' Technical Manual For Interpreting Test Scores. Washington: Project TALENT Office, University of Pittsburgh, 1961.)

e/ These subsamples are drawn from the cases in approximately 80 per cent of the TALENT schools--the first 80 per cent to return their answer sheets to the Measurement Research Center for processing. (See Technical Report No. 1 for details: Flanagan, J. C.; Dailey, J. T.; Shaycoft, M. F.; Gorham, W. A.; Orr, D. B.; and Goldberg, I. Designing the Study. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1960.)

f/ This subsample consists of the Subsample B-01.0(.80)-25 cases, supplemented by cases from enough of the missing 20 per cent of the schools to bring the sample up to an estimated 94 per cent of the Subsample A-01.0-25 cases. (Though 94 per cent is only a rough estimate of the percentage, it is the most accurate estimate presently possible.)

g/ As indicated in Table 2-1, data analyses in this report that are indicated to be based on Subsample 0 or A-10.0-3 or on Sample A-100.0 include only the complete Project TALENT cases incorporated in the 1963 edition of the master tape file.

TABLE A-2

Comparison of Subsample 0[a] and Subsample A-10.0-3[b] With Respect to Means and Standard Deviations on 31 TALENT Variables, by Grade and Sex

Table A-2a. Grade 9

		Boys				Girls			
		Means		S. D.		Means		S. D.	
		Subsample 0	Subsample A-10.0-3	Subsample 0	Subsample A-10.0-3	Subsample 0	Subsample A-10.0-3	Subsample 0	Subsample A-10.0-3
R-101	Screening	10.89	10.98	1.78	1.67	11.36	11.37	1.32	1.28
R-102	Vocabulary I	10.80	11.10	4.15	4.01	9.76	9.99	3.98	3.87
R-103	Literature Info	10.06	10.07	4.20	4.02	9.78	9.80	3.85	3.80
R-104	Music Info	4.79	4.96	2.82	2.76	5.40	5.60	2.90	2.83
R-105	Social Stud. Info	12.72	13.14	5.65	5.48	11.24	11.57	4.98	4.91
R-106	Mathematics Info	6.98	7.03	3.92	3.88	6.31	6.17	3.51	3.44
R-107	Physical Science Info	8.32	8.66	3.87	3.86	6.87	7.02	3.46	3.47
R-108	Biological Sci. Info	5.34	5.32	2.44	2.38	4.58	4.49	2.28	2.16
R-109	Scientific Attitude	5.10	5.12	2.05	2.02	5.21	5.27	1.97	1.94
R-110	Aero-Space Info	4.05	4.20	2.34	2.33	2.52	2.60	1.60	1.62
R-111	Elec. Info	7.69	8.02	3.97	4.02	5.17	5.18	2.54	2.58
R-112	Mech. Info	10.39	10.48	3.59	3.55	6.90	6.77	2.79	2.78
R-113	Farming Info	7.08	7.12	2.62	2.56	6.52	6.46	2.59	2.61
R-114	Home Economics Info	7.34	7.36	2.91	2.78	11.11	11.14	3.38	3.39
R-115	Sports Info	6.77	7.02	3.13	3.02	4.61	4.76	2.32	2.34
R-190	Info Part I Total	118.35	120.57	38.00	36.29	107.36	108.19	31.33	30.61
R-211	Memory for Sentences	8.43	8.58	3.09	3.10	9.17	9.24	3.05	2.99
R-212	Memory for Words	9.64	9.62	4.76	4.70	10.84	11.08	5.01	5.08
R-220	Disguised Words	12.00	12.16	6.28	6.18	13.13	13.35	6.51	6.67
R-230	English Total	72.16	72.38	15.14	14.77	79.14	79.23	13.04	13.11
R-240	Word Functions	7.92	7.86	4.54	4.54	9.05	9.10	5.08	5.09
R-250	Reading Comprehension	23.99	24.55	11.14	10.98	25.64	26.09	10.33	10.35
R-260	Creativity	7.41	7.70	3.76	3.79	7.03	7.23	3.45	3.54
R-270	Mech. Reasoning	11.00	11.17	4.05	4.04	7.72	7.83	3.30	3.37
R-281	Vis. in 2 Dimensions	12.62	12.46	5.63	5.67	10.74	10.90	5.44	5.42
R-282	Vis. in 3 Dimensions	7.92	8.08	3.23	3.29	7.27	7.31	2.86	2.90
R-290	Abstract Reasoning	7.94	8.05	3.15	3.16	7.88	8.05	3.18	3.12
R-311	Math.I Arith. Reas.	7.27	7.35	3.42	3.45	7.02	7.01	3.28	3.28
R-312	II Introd. h.s.	9.20	9.24	4.17	4.18	9.36	9.35	3.93	3.85
R-333	III Advanced h.s.	2.42	2.36	1.64	1.66	2.15	2.12	1.53	1.49
R-340	Total	18.88	18.90	7.53	7.59	18.53	18.40	7.00	6.93
	N (Unweighted)	3915		3915		3864		3864	
	N (Unweighted)		3921		3921		4012		4012
	N' (Weighted)		822,098		822,098		827,146		827,146

[a] For subsample 0, the means and standard deviations are based on unweighted data.

[b] For subsample A-10.0-3, the means and standard deviations are based on weighted data. School weight A was used.

TABLE A-2 (continued)

Table A-2b. Grade 10

		Boys				Girls			
		Means		S. D.		Means		S. D.	
		Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3
R-101	Screening	11.24	11.24	1.46	1.43	11.58	11.54	0.99	1.01
R-102	Vocabulary I	12.13	12.25	4.11	3.94	10.98	10.95	4.06	3.97
R-103	Literature Info	11.75	11.65	4.42	4.38	11.51	11.42	4.21	4.12
R-104	Music Info	5.40	5.51	2.89	2.84	5.97	6.08	2.91	2.82
R-105	Social Stud. Info	14.13	14.17	5.53	5.36	12.29	12.27	4.96	4.83
R-106	Mathematics Info	8.72	8.43	4.86	4.70	7.42	7.19	4.34	4.27
R-107	Physical Science Info	8.79	8.84	3.95	3.87	6.96	6.77	3.44	3.48
R-108	Biological Sci. Info	6.37	6.38	2.40	2.37	5.62	5.56	2.27	2.31
R-109	Scientific Attitude	5.70	5.70	1.98	1.94	5.74	5.68	1.96	1.94
R-110	Aero-Space Info	4.43	4.52	2.38	2.35	2.57	2.59	1.63	1.62
R-111	Elec. Info	8.72	8.57	4.19	4.04	5.34	5.25	2.50	2.42
R-112	Mech. Info	11.64	11.58	3.45	3.41	7.41	7.33	2.81	2.82
R-113	Farming Info	7.80	7.68	2.44	2.43	7.01	6.94	2.58	2.53
R-114	Home Economics Info	8.19	8.00	2.96	2.90	12.22	12.06	3.34	3.34
R-115	Sports Info	7.63	7.68	3.07	2.99	5.20	5.30	2.40	2.43
R-190	Info Part I Total	132.63	132.21	37.76	36.24	117.80	116.93	31.82	31.22
R-211	Memory for Sentences	8.63	8.66	2.99	3.01	9.39	9.44	3.02	3.08
R-212	Memory for Words	10.24	10.20	4.91	4.88	11.82	12.06	5.48	5.46
R-220	Disguised Words	13.25	13.46	6.68	6.69	14.69	14.70	6.83	6.77
R-230	English Total	76.07	76.21	14.59	14.15	82.77	82.68	12.39	13.25
R-240	Word Functions	8.89	8.87	5.03	5.01	10.38	10.55	5.49	5.54
R-250	Reading Comprehension	27.40	27.52	11.10	11.01	28.89	29.05	10.17	10.10
R-260	Creativity	8.46	8.42	4.01	3.96	7.81	7.88	3.64	3.64
R-270	Mech. Reasoning	11.92	12.10	4.20	4.08	8.12	8.37	3.50	3.48
R-281	Vis. in 2 Dimensions	13.55	13.41	5.74	5.76	11.58	11.49	5.58	5.62
R-282	Vis. in 3 Dimensions	8.62	8.68	3.36	3.34	7.72	7.78	3.02	2.97
R-290	Abstract Reasoning	8.49	8.61	3.10	3.05	8.27	8.48	3.09	3.08
R-311	Math.I Arith. Reas.	8.07	8.13	3.46	3.46	7.55	7.61	3.44	3.44
R-312	II Introd. h.s.	10.25	10.05	4.63	4.49	9.85	9.71	4.24	4.18
R-333	III Advanced h.s.	3.01	2.96	1.95	1.93	2.65	2.63	1.75	1.74
R-340	Total	21.32	21.11	8.59	8.36	20.05	19.91	7.83	7.77
	N (Unweighted)	3846		3846		3727		3727	
	N (Unweighted)		3876		3876		3914		3914
	N' (Weighted)		813,295		813,295		820,482		820,482

See footnotes on Table A-2a.

TABLE A-2 (continued)

Table A-2c. Grade 11

		Boys				Girls			
		Means		S. D.		Means		S. D.	
		Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3
R-101	Screening	11.44	11.46	1.26	1.19	11.65	11.63	0.87	0.96
R-102	Vocabulary I	13.27	13.31	3.97	3.88	11.78	11.91	4.09	4.14
R-103	Literature Info	13.02	13.01	4.53	4.55	12.59	12.80	4.38	4.46
R-104	Music Info	5.97	6.09	3.00	2.96	6.53	6.62	2.96	2.98
R-105	Social Stud. Info	16.11	16.08	5.28	5.22	14.15	14.20	5.11	5.00
R-106	Mathematics Info	10.48	10.35	5.97	5.78	7.85	7.94	5.10	5.21
R-107	Physical Science Info	9.68	9.74	4.14	4.20	6.98	6.94	3.72	3.73
R-108	Biological Sci. Info	6.68	6.70	2.27	2.31	5.74	5.75	2.21	2.26
R-109	Scientific Attitude	6.13	6.17	1.93	1.92	6.07	6.11	1.89	1.94
R-110	Aero-Space Info	4.80	4.82	2.39	2.43	2.62	2.66	1.69	1.72
R-111	Elec. Info	9.63	9.58	4.24	4.35	5.51	5.35	2.63	2.56
R-112	Mech. Info	12.81	12.75	3.25	3.32	7.95	7.84	2.93	2.94
R-113	Farming Info	8.21	8.15	2.25	2.34	7.34	7.33	2.48	2.51
R-114	Home Economics Info	8.81	8.67	2.93	2.91	12.88	12.75	3.27	3.32
R-115	Sports Info	8.28	8.30	2.99	2.91	5.53	5.68	2.45	2.47
R-190	Info Part I Total	145.32	145.19	37.74	37.36	125.18	125.50	33.33	33.57
R-211	Memory for Sentences	8.70	8.71	2.98	3.05	9.34	9.41	3.09	3.03
R-212	Memory for Words	10.89	10.98	5.19	5.32	12.70	12.92	5.57	5.66
R-220	Disguised Words	14.83	14.87	6.96	6.99	16.25	16.21	7.15	7.07
R-230	English Total	79.79	79.99	13.37	13.81	85.67	86.01	11.66	12.32
R-240	Word Functions	9.69	9.82	5.13	5.35	10.97	11.40	5.50	5.73
R-250	Reading Comprehension	30.64	30.84	10.69	10.89	30.99	31.46	9.91	10.04
R-260	Creativity	9.45	9.45	4.13	4.17	8.44	8.61	3.78	3.78
R-270	Mech. Reasoning	12.81	12.87	4.07	4.10	8.55	8.63	3.52	3.59
R-281	Vis. in 2 Dimensions	14.25	14.19	5.77	5.76	11.56	11.77	5.63	5.63
R-282	Vis. in 3 Dimensions	9.27	9.27	3.35	3.45	8.05	8.17	3.04	3.00
R-290	Abstract Reasoning	9.15	9.19	3.03	3.04	8.69	8.87	3.04	3.00
R-311	Math.I Arith. Reas.	9.07	9.02	3.52	3.57	8.02	8.20	3.52	3.55
R-312	II Introd. h.s.	11.55	11.55	5.41	5.36	10.00	10.10	4.59	4.82
R-333	III Advanced h.s.	4.00	3.91	2.71	2.62	3.02	3.04	2.20	2.22
R-340	Total	24.61	24.47	10.38	10.23	21.04	21.27	8.82	9.19
	N (Unweighted)	3619		3619		3557		3557	
	N (Unweighted)		3483		3483		3658		3658
	N' (Weighted)		735,141		735,141		760,695		760,695

See footnotes on Table A-2a.

TABLE A-2 (continued)

Table A-2d. Grade 12

		Boys				Girls			
		Means		S. D.		Means		S. D.	
		Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3	Sub-sample 0	Sub-sample A-10.0-3
R-101	Screening	11.55	11.54	1.11	1.10	11.74	11.70	0.77	0.81
R-102	Vocabulary I	13.98	14.07	3.81	3.73	12.66	12.81	4.06	4.02
R-103	Literature Info	13.80	14.02	4.67	4.68	13.81	14.06	4.71	4.74
R-104	Music Info	6.44	6.46	3.05	3.03	7.06	7.27	2.95	2.96
R-105	Social Stud. Info	16.59	16.75	5.00	4.98	14.63	14.73	4.83	4.95
R-106	Mathematics Info	11.23	11.32	6.15	6.14	8.03	7.99	5.32	5.25
R-107	Physical Science Info	10.38	10.40	4.36	4.36	7.23	7.29	3.97	3.94
R-108	Biological Sci. Info	6.78	6.77	2.25	2.32	5.82	5.73	2.21	2.27
R-109	Scientific Attitude	6.54	6.47	1.88	1.87	6.47	6.44	1.82	1.86
R-110	Aero-Space Info	5.09	5.05	2.45	2.48	2.76	2.79	1.73	1.77
R-111	Elec. Info	10.49	10.40	4.51	4.53	5.76	5.60	2.81	2.76
R-112	Mech. Info	13.53	13.40	3.17	3.32	8.62	8.32	3.02	3.10
R-113	Farming Info	8.54	8.45	2.14	2.21	7.71	7.57	2.42	2.48
R-114	Home Economics Info	9.22	9.08	2.91	3.03	13.62	13.37	3.22	3.19
R-115	Sports Info	8.77	8.86	2.94	2.79	5.93	6.07	2.52	2.50
R-190	Info Part I Total	152.94	153.04	37.52	37.51	131.85	131.74	33.60	33.86
R-211	Memory for Sentences	8.63	8.75	2.96	3.16	9.36	9.47	3.12	3.19
R-212	Memory for Words	11.16	11.31	5.26	5.34	13.26	13.17	5.64	5.69
R-220	Disguised Words	15.63	15.57	7.04	7.01	17.47	17.36	6.93	6.96
R-230	English Total	82.36	82.64	13.74	14.06	88.71	88.68	11.47	12.58
R-240	Word Functions	10.13	10.56	5.19	5.39	11.63	12.06	5.57	5.73
R-250	Reading Comprehension	32.67	33.02	10.35	10.48	33.28	33.56	9.42	9.81
R-260	Creativity	10.11	10.27	4.22	4.22	9.15	9.22	3.85	3.87
R-270	Mech. Reasoning	13.29	13.46	3.94	4.11	8.75	8.84	3.56	3.63
R-281	Vis. in 2 Dimensions	14.49	14.40	5.70	5.59	11.98	11.90	5.68	5.63
R-282	Vis. in 3 Dimensions	9.69	9.71	3.38	3.43	8.40	8.46	3.10	3.16
R-290	Abstract Reasoning	9.47	9.62	2.92	2.98	9.06	9.24	2.92	2.96
R-311	Math.I Arith. Reas.	9.78	9.81	3.63	3.67	8.68	8.77	3.59	3.54
R-312	II Introd. h.s.	12.21	12.38	5.69	5.63	10.11	10.25	4.77	4.85
R-333	III Advanced h.s.	4.50	4.41	3.15	3.05	3.26	3.10	2.44	2.31
R-340	Total	26.48	26.58	11.22	11.14	22.05	22.10	9.31	9.23
	N (Unweighted)	3027		3027		3061		3061	
	N (Unweighted)		2946		2946		3302		3302
	N' (Weighted)		619,394		619,394		678,476		678,476

See footnotes on Table A-2a.

TABLE A-3

Comparison of 10% Subsample (A-10.0-3) and 100% Sample (A-100.0) With Respect to Means[a] on TALENT Information Test, Part II, by Grade and Sex

Info. Part II Scale[b]	n	Boys' Means[a]								Girls' Means[a]							
		Grade 9		Grade 10		Grade 11		Grade 12		Grade 9		Grade 10		Grade 11		Grade 12	
		10%	100%	10%	100%	10%	100%	10%	100%	10%	100%	10%	100%	10%	100%	10%	100%
R-131 Art	12	5.24	5.18	5.70	5.74	6.25	6.23	6.52	6.51	5.45	5.44	5.96	6.00	6.43	6.45	6.84	6.80
R-132 Law	9	4.10	4.09	4.58	4.57	5.07	5.04	5.61	5.57	3.71	3.69	3.99	4.03	4.39	4.36	4.85	4.88
R-133 Health	9	4.75	4.72	5.40	5.43	5.83	5.84	6.11	6.09	5.26	5.25	5.90	5.91	6.23	6.25	6.52	6.52
R-134 Engin.	6	2.79	2.76	3.05	3.06	3.39	3.36	3.54	3.54	2.27	2.27	2.47	2.48	2.66	2.68	2.86	2.83
R-135 Arch.	6	2.23	2.24	2.49	2.54	2.71	2.72	2.89	2.87	2.25	2.24	2.47	2.52	2.63	2.64	2.78	2.78
R-136 Journ.	3	1.37	1.35	1.54	1.54	1.78	1.79	1.99	2.01	1.38	1.38	1.55	1.55	1.77	1.77	2.01	2.00
R-137 For.Tr.	5	2.35	2.36	2.62	2.62	2.80	2.80	2.96	2.96	2.00	1.98	2.18	2.20	2.29	2.33	2.53	2.52
R-138 Mil.	7	2.11	2.09	2.37	2.36	2.68	2.66	2.95	2.98	1.60	1.61	1.77	1.78	1.95	1.97	2.19	2.18
R-139 Acct,etc	10	3.78	3.74	4.19	4.18	4.72	4.73	5.38	5.35	3.71	3.71	4.08	4.11	4.71	4.68	5.37	5.37
R-140 Pract.	4	2.65	2.63	2.90	2.92	3.16	3.15	3.30	3.29	2.82	2.80	3.00	3.01	3.16	3.18	3.30	3.30
R-141 Cler.	3	1.16	1.15	1.44	1.44	1.85	1.81	2.07	2.06	1.42	1.42	1.87	1.87	2.37	2.37	2.56	2.56
R-142 Bible	15	6.11	6.09	6.55	6.57	7.15	7.11	7.51	7.46	6.32	6.35	6.87	6.86	7.26	7.26	7.73	7.64
R-143 Colors	3	1.02	1.02	1.09	1.09	1.16	1.16	1.24	1.24	1.41	1.40	1.54	1.54	1.71	1.70	1.86	1.85
R-144 Etiq.	2	0.74	0.74	0.82	0.83	0.92	0.91	1.01	0.98	1.00	1.01	1.10	1.09	1.15	1.15	1.23	1.22
R-145 Hunt.	5	1.96	1.95	2.18	2.18	2.34	2.33	2.45	2.43	1.02	1.01	1.09	1.08	1.15	1.13	1.14	1.16
R-146 Fish.	5	1.55	1.53	1.70	1.70	1.88	1.85	1.94	1.93	0.96	0.98	0.99	0.99	1.05	1.04	1.06	1.05
R-147 Outdr.	9	4.32	4.31	4.77	4.77	5.11	5.10	5.31	5.30	3.83	3.81	4.16	4.16	4.40	4.41	4.57	4.55
R-148 Photo.	3	1.06	1.04	1.19	1.20	1.34	1.33	1.42	1.44	1.12	1.13	1.26	1.26	1.37	1.37	1.42	1.43
R-149 Games	5	2.22	2.21	2.36	2.36	2.48	2.45	2.48	2.49	1.92	1.90	1.97	1.97	2.02	2.02	2.08	2.05
R-150 Theat.	8	3.24	3.24	3.64	3.64	4.06	4.05	4.40	4.39	3.83	3.81	4.18	4.19	4.56	4.58	5.00	4.95
R-151 Foods	4	0.96	0.96	1.08	1.07	1.17	1.20	1.31	1.33	1.18	1.17	1.30	1.32	1.48	1.48	1.72	1.70
R-152 Misc.	10	4.22	4.21	4.62	4.63	4.93	4.92	5.13	5.12	4.06	4.01	4.32	4.33	4.50	4.50	4.73	4.72
R-162 Voc.[c]	(9)	4.87	4.82	5.40	5.39	5.94	5.94	6.35	6.37	5.23	5.22	5.65	5.67	6.06	6.10	6.50	6.48
R-192 TOTAL	143	59.93	59.62	66.28	66.41	72.78	72.54	77.52	77.34	58.52	58.35	64.02	64.26	69.24	69.32	74.35	74.04

[a] The means based on the total sample (A-100.0) are in the column headed "100%." The Subsample A-10.0-3 means are in the column headed "10%."

[b] See Appendix B-1 for full names of scales.

[c] Nine items for this scale are included in the scales above.

A P P E N D I X B

SUMMARY OF TALENT VARIABLES

Table		Page
B-1	Composition of the Project TALENT Battery	B-2
B-2	Thirteen A Priori Composites of TALENT Test Scores	B-8

TABLE B-1

Composition of the Project TALENT Battery

Variable # [a]		Options per item	No. of items	No. of minutes working time [b]	No. of scores	Scoring Formula [c]
APTITUDE AND ACHIEVEMENT TESTS						
	Information Test:		(395)	(125)	(43)	
	Part I	5	(252)	90	(16)	
	Subscales				(15)	
101	1. Screening		12		1	R
102	2. Vocabulary		21		1	R
103	3. Literature		24		1	R
104	4. Music		13		1	R
105	5. Social studies		24		1	R
106	6. Mathematics		23		1	R
107	7. Physical science		18		1	R
108	8. Biological science		11		1	R
109	9. Scientific attitude		10		1	R
110	10. Aeronautics and space		10		1	R
111	11. Electricity and electronics		20		1	R
112	12. Mechanics		19		1	R
	a. Tools and construction [e]		(10)			
	b. Motors and mechanisms [e]		(9)			
113	13. Farming		12		1	R
114	14. Home economics		21		1	R
	a. Cooking [e]		(11)			
	b. Other [e]		(10)			
115	15. Sports		14		1	R
190	Part I Total		(252)		1	R

See footnotes on pages B-6 and B-7.

TABLE B-1 (continued)

Variable # [a]		Options per item	No. of items	No. of minutes working time [b]	No. of scores	Scoring Formula [c]
	Information Test (continued)					
	Part II	5	(143)	35	(25)[d]	R,F
	Subscales				(22)	
131	1. Art		12		1	
132	2. Law		9		1	
133	3. Health		9		1	
134	4. Engineering		6		1	
135	5. Architecture		6		1	
136	6. Journalism		3		1	
137	7. Foreign travel		5		1	
138	8. Military		7		1	
139	9. Accounting, business, sales		10		1	
140	10. Practical knowledge		4		1	
141	11. Clerical		3		1	
142	12. Bible		15		1	
143	13. Colors		3		1	
144	14. Etiquette		2		1	
145	15. Hunting		5		1	
146	16. Fishing		5		1	
147	17. Outdoor activities (other)		9		1	
148	18. Photography		3		1	
149	19. Games (sedentary)		5		1	
150	20. Theater and ballet		8		1	
	a. Theater		(6)		-	
	b. Ballet		(2)		-	
151	21. Foods		4		1	
152	22. Miscellaneous		10		1	
	Overlapping Subscales				(2)[d]	R,F
162	Vocab.(overlapping other scales)		(9)		1	
163	Outdoor activities (Hunting + Fishing + other)		(19)		1	
192	Part II Total (inc. 10 misc. items)		(143)		1	R,F,L
	Parts I + II combined		(395)	(125)	(2)[d]	
172	Vocabulary scale (Variables 102+162)		(30)		1	
100	Grand Total		(395)		1	

See footnotes on pages B-6 and B-7.

TABLE B-1 (continued)

Variable # [a]		Options per item	No. of items	No. of minutes working time [b]	No. of scores	Scoring Formula [c]
211	Memory for sentences					
	Study	-	(40 sentences)	6	-	
	Test	5	16	10	1	R
212	Memory for words					
	Study	-	(24 words)	2	-	
	Practice	-	(24)	2	-	
	Test	5	24	4	1	R
220	Disguised words	5	30	3	1	R
	English		(113)	52	(6)	
231	1. Spelling	5	16		1	R
232	2. Capitalization	2	33		1	R
233	3. Punctuation					
	a. Punctuation marks [e]	3-5	(16)			
	b. Sentence structure [e]	3	(11)			
	Punctuation Total		27		1	R
234	4. English usage	3-5	25		1	R
235	5. Effective expression	3-5	12		1	R
230	Total		(113)		1	R
240	Word functions in sentences					
	Directions	-	-	$2\frac{1}{2}$		
	Test	5	24	15	1	R
250	Reading comprehension	5	48	30	1	R
260	Creativity	5	20	20	1	R
270	Mechanical reasoning	3-5	20	11	1	R
281	Visualization in two dimensions	5	24	4	1	R
282	Visualization in three dimensions	5	16	9	1	R
290	Abstract reasoning	5	15	11	1	R
	Mathematics		(54)	50	(6)	
311	Part I. Arithmetic reasoning		16		1	R
312	Part II. Introductory h.s. math		24		1	R
320	Subtotal (Parts I + II)		(40)		1	R
333	Part III. Advanced h.s. math		14		1	R
334	High School Subtotal (Parts II+III)		(38)		1	R
340	Total (Parts I + II + III)		(54)		1	R
410	Arithmetic computation	5	72	9	3	R,A,F
420	Table reading	5	72	3	3	R,A,F
430	Clerical checking	2	74	3	3	R,A,F
440	Object inspection	5	40	3	3	R,A,F
	MISCELLANEOUS					
500	Preferences test	2	166	3	1	A
	Themes	-	(2)	(10+)		
910	My views about an ideal occupation		1	5+		
920	What high school means to me		1	5+		

See footnotes on pages B-6 and B-7.

TABLE B-1 (continued)

Variable # [a]		Options per item	No. of items	No. of minutes working time [b]	No. of scores	Scoring Formula [c]
	INVENTORIES					
600	Student Activities Inventory	5	(150)	20		
	Regular scales		(108)		(10)	R
601	Sociability		12		1	
602	Social sensitivity		9		1	
603	Impulsiveness		9		1	
604	Vigor		7		1	
605	Calmness		9		1	
606	Tidiness		11		1	
607	Culture		10		1	
608	Leadership		5		1	
609	Self-confidence		12		1	
610	Mature personality		24		1	
	Experimental scales		(18)			
611	Conventionality [e]		4			
612	Theoreticality [e]		8			
613	Group centeredness [e]		6			
	Miscellaneous		24			
700	Interest Inventory	5	205	20	[d]	L
	Part I. Occupations		(122)			
	Part II. Activities		(83)			
	Scales: ("core items")		(173)		(34)	F,F*,P
701	Physical science, engineering, math		16		2	
702	Biological science and medicine		8		2	
703	Public service		11		2	
704	Literary-linguistic		16		2	
705	Social service		12		2	
706	Artistic		7		2	
707	Musical		5		2	
708	Sports		8		2	
709	Hunting and fishing		3		2	
710	Business management		14		2	
711	Sales		6		2	
712	Computation		10		2	
713	Office work		7		2	
714	Mechanical-technical		15		2	
715	Skilled trades		18		2	
716	Farming		7		2	
717	Labor		10		2	
	Miscellaneous: "non-core items"		(32)			
800	Student Information Blank	2-36	(394)	80		L

See foo notes on pages B-6 and B-7.

TABLE B-1 (continued)

NOTES

a/ The code for a variable consists of the three-digit variable number prefixed by a capital letter representing the kind of score. The capital letters have the following meanings:

R = number of right responses

W = number of wrong responses

A = number of items attempted
This means the number of items to which some response is marked. Items that are deliberately omitted and items that are not reached are not included in this count.

F = formula score
This score is usually a function of the R and A scores, or of R and W, or of variable weights for item responses.

P = formula score on a per-item basis

L = item number of last item marked

b/ Does not include the time used for giving directions except where otherwise indicated. (The exceptions occur where comprehension of directions is considered an integral part of the testing time allowance.)

c/ This column shows the kinds of scores obtained routinely for all Project TALENT cases. The scoring formulas are as follows:

F-410 = R-3W = 4R-3A
F-420 = R-W = 2R-A
F-430 = R-3W = 4R-3A
F-440 = R-W = 2R-A

Information Test (Part II) scores:

$$F = R - \frac{W}{4} = \frac{5R - A}{4}$$

Interest Inventory scores:

There are two different sets of Interest Inventory scores in current use. They are designated respectively F*701 through F*717 and P-701 through P-717. The first is used in the present report and the second is used elsewhere. A third set, designated F-701 through F-717 was used in an earlier report: Shaycoft, M. F.; Dailey, J. T.; Orr, D. B.; Neyman, C. A., Jr.; and Sherman, S. E. Studies of a Complete Age Group--Age 15. Technical Report to the U. S. Office of Education, Cooperative Research Project No. 566. Pittsburgh: Project TALENT Office, University of Pittsburgh, 1963.

TABLE B-1 (continued)

In these three Interest Inventory scoring systems, each item is scored as follows:

Response	Option	Item Score (w) F-701 Through F-717	Item Score (w) F*701 Through F*717	Item Score (w) P-701 Through P-717	Weight for Answering Item (w')
A	Like very much	1	4	4	1
B	Like fairly well	2	3	3	1
C	Indifferent or don't know	3	2	2	1
D	Dislike a little	4	1	1	1
E	Dislike very much	5	0	0	1
Omit		3	2	0	0
Scoring formula		Σw	Σw	$\frac{\Sigma w}{\Sigma w'}$	

A fourth set of Interest Inventory scores, designated F'701 through F'717, was used once, but has been superseded.

d/ The scoring of Information Test: Part II and the Interest Inventory is extremely flexible since each student's responses to the individual items were punched on cards. Items can (and will) be combined to form additional scales besides those indicated in this table. As of the date of this report, rights scores (R) are available for Information Part II, but formula scores (F) are not yet available. Likewise F* scores are presently available for the Interest Inventory, but P scores are not.

e/ Scores on this variable are available for the "4% sample" (Subsample A-04.0-25) only.

TABLE B-2

Thirteen A Priori Composites of TALENT Test Scores

Composite Code	Composite	Code #	Test	Max. Raw Score	Raw Score Weight (k)	Relative Effective Weight (Gr. 12)[a/]
C-001	IQ Composite	R-250	Reading Comp.	48	3	.51
		R-290	Abstract Reasoning	15	5	.25
		R-311	Math I	16	4	.24
		C-001	Total	283		1.00
C-002	Gen. Academic Aptitude Composite	R-106	Math Info	23	2	.08
		R-172	Vocab. I + II	30	1	.04
		R-230	English Total	113	3	.28
		R-250	Reading Comp.	48	3	.20
		R-260	Creativity	20	2	.06
		R-290	Abstract Reasoning	15	2	.04
		R-311	Math I	16	-	.12
		R-312	Math II	24	-	.18
		R-320	Math I + II	40	5	-
		C-002	Total	829		1.00
C-003	Verbal Composite	R-103	Literature Info	24	1	.20
		R-172	Vocab. I + II	30	1	.23
		R-230	English Total	113	1	.57
		C-003	Total	167		1.00
C-004	Quantitative Aptitude Composite	R-106	Math Info	23	2	.21
		R-311	Math I	16	3	.20
		R-312	Math II	24	4	.39
		R-333	Math III	14	4	.20
		C-004	Total	246		1.00
C-005	Technical Aptitude Composite	R-107	Physical Sci. Info	18	1	.20
		R-108	Biological Sci. Info	11	1	.11
		R-110	Aero.Space Info	10	1	.11
		R-111	Elec. Info	20	1	.20
		R-112	Mech. Info	19	1	.18
		R-270	Mechanical Reasoning	20	1	.20
		C-005	Total	98		1.00
C-006	Scientific Aptitude Composite	C-001	IQ Composite	283	1	.25
		C-004	Quant. Composite	246	1	.24
		C-005	Technical Composite	98	3	.27
		R-260	Creativity	20	12	.24
		C-006	Total	1063		1.00

See footnotes on page B-10.

TABLE B-2 (continued)

Composite Code	Composite	Code #	Test	Max. Raw Score	Raw Score Weight (k)	Relative Effective Weight (Gr. 12)[a]
C-007	High School Academic Achievement Composite	R-103	Literature Info	24	3	.15
		R-105	Social Studies Info	24	2	.11
		R-106	Math Info	23	2	.13
		R-107	Physical Sci. Info	18	3	.14
		R-108	Biological Sci. Info	11	4	.10
		R-230	English Total	113	1	.14
		R-312	Math II	24	2	.11
		R-333	Math III	14	4	.12
		C-007	Total	481		1.00
C-008	Academic Achievement (curriculum-linked)	C-007	HS Acad. Ach. Comp.	481	1	.64
		R-250	Reading Comp.	48	2	.17
		R-311	Math I	16	6	.19
		C-008	Total	673		1.00
C-009	Foreign Language Aptitude Composite	R-212	Memory for Words	24	2	.18
		R-220	Disguised Words	30	2	.23
		R-230	English Total	113	1	.23
		R-240	Word Funct.in Sent.	24	2	.19
		R-250	Reading Comp.	48	1	.17
		C-009	Total	317		1.00
C-010	Technical Composite (non-academic)	R-110	Aero.Space Info	10	5	.16
		R-111	Elec. Info	20	3	.18
		R-112	Mech. Info	19	3	.16
		R-270	Mechanical Reasoning	20	4	.24
		R-281	Vis. in 2 Dimensions	24	1	.08
		R-282	Vis. in 3 Dimensions	16	4	.18
		C-010	Total	335		1.00
C-011	Composite T	R-110	Aero.Space Info	10	1	.16
		R-111	Elec. Info	20	1	.29
		R-112	Mech. Info	19	1	.26
		R-270	Mechanical Reasoning	20	1	.29
		C-011	Total	69		1.00
C-012	Composite S	C-004	Quant. Composite	246	1	.47
		C-005	Technical Composite	98	3	.53
		C-012	Total	540		1.00
C-013[b]	Talent Loss Study Composite	R-230	English Total	113	1	.42
		R-250	Reading Comp.	48	1	.32
		R-320	Math I + II	40	1	.26
		C-013	Total	201		1.00

See footnotes on page B-10.

TABLE B-2 (continued)

[a] Proportional to $k\sigma$ where σ is grade 12 standard deviation for Subsample A-10.0-3, and k is the raw score weight.

[b] The "Talent Loss Study Composite" (C-013) was used as a measure of academic ability in a special study of the extent to which able students are deprived of a college education by inability to finance it. This study was carried out for the U.S. Office of Education under Contract No. SAE 8200, CRP 635, Amendment No. 2.

APPENDIX C

GLOSSARY OF NOTATION

1. General Notation

n = number of items in test or scale.

n' = number of options per item (or mean number of options per item).

N = number of cases on which statistics are based.

(N = unweighted number of cases)

N' = number of cases represented in the national population of high-school students by the statistics presented.

In other words, where cases have been weighted differentially in order to yield statistics that are estimates of the values for the national population of high-school students (or some segment of that population), N' represents the weighted number of cases.

Where all cases have been weighted equally, $N' = N$.

$\bar{X}$ = sample mean on Variable X.

s_x^2 = sample variance on Variable X (not unbiased estimate of corresponding population parameter).

s_x = sample standard deviation.

r_{xx} = reliability coefficient for Variable X.

p_i = proportion of students who answer item i correctly.

r_{pt} = correlation between a part score (p) and a total score (t) which includes p.

r'_{pt} = correlation coefficient r_{pt}, corrected for spuriousness.

$R_{i.c}$ = multiple correlation of dependent variable i with a set of independent variables whose optimum composite is represented by c.

$_{s}R$ = multiple correlation coefficient corrected by Wherry shrinkage formula. (See footnote on page 2-60.)

U_i^2 = uniqueness coefficient of variable i. (See page 2-59.)

$U_i'^2$ = approximation of uniqueness coefficient of variable i. (See page 2-60.)

U_∞^2 = U_i^2 corrected for attenuation. (See page 2-59.)

$U_\infty'^2$ = $U_i'^2$ corrected for attenuation. (See page 2-72.)

2. Special Notation Used in Table 2-10

N = total number of cases (i.e., number of students).

m = number of subgroups into which the N students are divided (i.e., number of schools).

n_i = number of cases in school i.

r_{AB} = correlation between Variables A and B, based on N cases.

$r_{\bar{A}\bar{B}}$ = correlation between school means, based on m pairs of school means, with each pair weighted by the appropriate n_i.

r_{ab} = within-groups correlation of A and B, i.e., correlation between the deviations of scores on A and B from their school means. It is based on N cases.

r_{AA}, r_{aa}, and $r_{\bar{A}\bar{A}}$ are the corresponding reliability coefficients.

s_A and s_B are standard deviations of Variables A and B, for the total group (N cases).

$s_{\bar{A}}$ and $s_{\bar{B}}$ are the standard deviations of school means, with each of the m means weighted by the appropriate n_i.

s_a and s_b are within-groups standard deviations, i.e., standard deviations of the deviations of scores on A and B from their school means. These standard deviations are based on N cases.

3. Other Notation

See Appendix B-1, Footnote a, for explanation of other notation.

APPENDIX D

SUPPLEMENTARY MATERIALS RELATING TO RELIABILITY OF THE TALENT TESTS

		Page
D-1	Some Technical Considerations in Regard to Reliability Coefficients for Project TALENT Tests	D-2
	Table D-1. Comparison of Reliability Estimates Obtained by Various Procedures for a Two-Item Scale (Etiquette Information, R-144)	D-3
D-2	Split-Half Reliability Coefficients for TALENT Tests Based on Air Force Enlisted Personnel	D-4
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APPENDIX D-1

Some Technical Considerations in Regard to Reliability Coefficients for Project TALENT Tests

As indicated in Chapter 2 of this report, in the case of most of the tests it has been necessary to depend for estimates of reliability on the KR-21 procedure. Table 2-5 shows numerous instances where this procedure appears to give a very reasonable result (as judged not only by subjective considerations but also by the similarity of the KR-21 estimate to the KR-20 estimate). However there are cases where the KR-21 procedure gives obviously useless results (negative reliability coefficients, and even coefficients beyond -1). Such results seem mostly to be limited to scales that are extremely short and whose few items vary substantially in item difficulty.

For one such scale, Etiquette Information (R-144), which has only two items, reliability coefficients computed by a number of different procedures are presented in Table D-1. It is clear from these data that even though the KR-21 formula produces estimates unlike those yielded by KR-20, the latter gives values that even in this rather extreme situation (a two-item scale) are virtually identical with those yielded by other procedures (KR-14, split-half with Spearman-Brown correction, and split-half with Angoff Formula No. 16 correction[1]) involving fewer assumptions. These results strongly suggest that even in cases where KR-21 is clearly inappropriate, KR-20 will give useful results. It must be borne in mind, of course, that in the case of the scale for which the empirical data are presented (R-144), the two items vary moderately, but not to an extreme extent, in difficulty. It would be desirable to extend the empirical exploration further, to include a scale such as Photography Information (R-148) which not only is short (only three items) but manifests extreme differences among the items with respect to difficulty. Data are not available at this time, however, for such an investigation.

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[1]Angoff, William H. "Test Reliability and Effective Test Length," Psychometrika, 1953, 18, 1-14.

TABLE D-1

Comparison of Reliability Estimates Obtained by Various Procedures for a Two-Item Scale[a] (Etiquette Information, R-144)

Sex	Grade	Data based on Sample A-100.0: Item difficulty indexes[b] p_1	p_2	$\bar{X}_T$ $(=\Sigma p_i)$	Data based on Subs. A-10.0-3: $\bar{X}_T$	s_T	p_{12}*	Based on Sample A-100.0: p_1p_2	Based on s_T from Subs. A-10.0-3, and p_i from Sample A-100.0: r of item with total r_{1T}	r_{2T}	r betw. items r_{12}	Estimates of r_{TT}: Based on Subs. A-10.0-3 KR (21)	Based on data partly from Sample A-100.0 and partly from Subsample A-10.0-3[b]: KR (21)	KR (20)	KR (14)	Split-half: Spearman-Brown	Angoff #16
M	12	.649	.330	.979	1.008	.683	.237	.214	.726	.716	.040	-.144	-.143	.075	.075	.077	.077
	11	.600	.309	.909	.915	.679	.192	.185	.730	.692	.014	-.153	-.151	.033	.033	.028	.028
	10	.538	.288	.826	.815	.680	.156	.155	.745	.679	.018	-.089	-.097	.038	.038	.035	.036
	9	.471	.274	.745	.741	.675	.132	.129	.751	.673	.017	-.048	-.052	.033	.033	.033	.034
F	12	.678	.546	1.224	1.229	.707	.391	.370	.711	.752	.073	.104	.100	.135	.135	.136	.136
	11	.641	.806	1.147	1.156	.725	.353	.324	.727	.752	.094	.144	.139	.173	.173	.172	.172
	10	.608	.484	1.092	1.098	.725	.317	.294	.727	.742	.077	.116	.114	.143	.143	.143	.143
	9	.545	.463	1.008	.997	.730	.265	.252	.732	.733	.072	.123	.124	.136	.136	.134	.134

[a] The first item (Item 265) is concerned with dating behavior; the second item (Item 379) with table-setting.

[b] Based on p_i from Sample A-100.0, s_T from Subsample A-10.0-3, and r_{12} which is based on both.

*p_i = proportion of total group who answer i^{th} item correctly.

p_{12} = proportion of total group who answer both items correctly.

Formulas

$$s_i^2 = p_i - p_i^2$$

$$r_{12} = \frac{s_T^2 - s_1^2 - s_2^2}{2s_1s_2}$$

$$p_{12} = \frac{s_T^2 - \bar{X}_T + \bar{X}_T^2}{2}$$

$$r_{iT} = r_{i(i+j)} = \frac{s_i + r_{ij}s_j}{s_T}$$

APPENDIX D-2

Split-Half Reliability Coefficients for the TALENT Tests Based on Air Force Enlisted Personnel

Table D-2 shows split-half reliability coefficients and other statistics based on enlisted personnel in the Air Force. The sample is described briefly in footnote 2 on page 2-17; the footnote also cites a reference that describes fully the study based on these Air Force personnel.

The two subsamples for which data are presented in Table D-2 are equivalent.

In order to obtain split-half reliability coefficients, each test or subtest was split into equivalent halves on an a priori basis. In the case of the Reading Comprehension Test, all items for a passage were in the same half test.

The tests were administered in the standard form with the standard time limits. Test halves were not separately timed. However, the tests for which these reliability coefficients were obtained had sufficiently generous time limits that they were essentially unspeeded or only very slightly speeded.

TABLE D-2

Means, Standard Deviations, Reliability Coefficients, and Other Statistics for TALENT Tests (Rights Scores)

Based on Air Force Cases (Two Subsamples of Basic Airmen)

Test	Subsample I-A: N=1247				Subsample I-B: N=1242				No. of Items
	M	s	r_{tt} [a]	r_{tc} [d]	M	s	r_{tt} [a]	r_{tc} [d]	
Info. Part I									
101. Screening	11.30	1.27	.640 [b]	.423	11.18	1.37	.645 [b]	.462	12
102. Vocab.	13.20	3.55	.771	.863	13.13	3.55	.754	.850	21
103. Lit.	12.15	4.57	.788	.789	12.25	4.53	.783	.769	24
104. Music	5.60	2.99	.751	.733	5.58	2.86	.693	.702	13
105. Soc. Stud.	14.79	5.07	.808	.816	14.80	5.00	.782	.818	24
106. Math	8.35	5.40	.871	.783	8.46	5.16	.847	.770	23
107. Phys. Sci.	9.16	4.19	.809	.847	9.04	4.19	.820	.849	18
108. Biol. Sci.	5.80	2.04	.541	.675	5.82	2.03	.594	.665	11
109. Sci. Att.	6.10	1.86	.478	.606	6.12	1.84	.491	.586	10
110. Aero & Space	4.82	2.48	.674	.753	4.78	2.36	.633	.726	10
111. Elec.	10.23	4.60	.830	.751	10.14	4.54	.813	.728	20
112. Mech.	13.28	3.20	.694	.669	13.24	3.19	.711	.649	19
113. Farming	7.96	2.18	.605	.556	8.04	2.15	.575	.566	12
114. Home Ec.	8.76	2.98	.517	.616	8.46	2.95	.472	.591	21
115. Sports	7.85	2.88	.711	.592	7.91	2.88	.715	.572	14
190. Total	139.35	36.04	.956 [c]		138.95	34.88	.941 [c]		252
English									
231. Spelling	8.72	2.81	.646	.685	8.62	3.02	.679	.709	16
232. Capital.	28.98	3.23	.758	.673	28.92	3.69	.815	.670	33
233. Punctuation	16.54	4.00	.751	.828	16.55	4.00	.718	.821	27
234. Usage	16.06	3.11	.454	.746	16.05	3.12	.473	.710	25
235. Eff. Exp.	8.62	2.13	.562	.623	8.64	2.23	.593	.617	12
230. Total	78.92	11.06	.867		78.78	11.49	.865		113
Misc.									
240. Wd. Func.	8.36	4.50	.775		8.53	4.42	.769		24
250. Rdg. Comp.	30.32	9.90	.899		30.28	9.96	.905		48
260. Creativity	9.26	4.11	.779		9.36	4.10	.768		20
270. Mech. Reas.	12.98	3.87	.821		12.88	3.88	.823		20
282. Vis.in 3 Dim.	9.72	3.27	.755		9.74	3.20	.746		16
290. Abst. Reas.	8.91	3.07	.735		9.03	2.94	.706		15
Math									
311. MathIArith.Reas	8.73	3.53	.760	.874 [e]	8.82	3.53	.754	.872 [e]	16
312. " II Introd.	9.78	4.95	.857	.938 [e]	9.78	4.81	.850	.933 [e]	24
320. "I+IISubtot.	18.51	7.73	.889		18.60	7.57	.882		40
320. "I+IISubtot.	18.51	7.73	.889	.981	18.60	7.57	.882	.979	40
333. " III Adv.	3.16	2.47	.692	.794	3.09	2.36	.660	.759	14
340. "I+II+IIITot.	21.67	9.54	.915		21.69	9.20	.901		54

NOTE: The following tests are omitted from this table because reliability coefficients could not be obtained. (Split-half coefficients would have been spuriously high.)

Memory tests with a single learning task

211. Memory for Sentences
212. Memory for Words

Highly speeded tests

220. Disguised Words
281. Visualization in Two Dimensions
410. Arithmetic Computation
420. Table Reading
430. Clerical Checking
440. Object Inspection

a/Split-half reliability coefficient corrected by Angoff formula #16, unless otherwise indicated.

b/KR-21.

c/Computed from formula for reliability of a composite. See Table 2-9, footnote d, for formula.

d/Correlation with corresponding total or subtotal.

e/Correlation with R-320.

A P P E N D I X E

RESPONSES OF BOYS AND OF GIRLS IN GRADES 9 AND 12 TO 36 SELECTED ITEMS IN THE STUDENT INFORMATION BLANK, BY ACADEMIC APTITUDE

Page

Table E-1. Responses of Boys and of Girls in Grades 9 and 12 to 36 Selected Items in the Project TALENT Student Information Blank, by Academic Aptitude E-2

NOTES TO APPENDIX E

1. The entries in Table E consist of weighted frequencies. (Weight A was used.)

2. The means (M) shown on pages E-2 to E-8 refer to the means of values assigned to options, as follows: A = 1; B = 2; C = 3; D = 4; E = 5; F = 6; etc. For example, the mean number of books reported to have been read by grade-9 boys in the lowest tenth of the aptitude distribution is <u>not</u> 2.872 but 7.360.

3. Options are indicated by choice letters as shown for each item. The frequencies of examinees who did not mark an item (because they did not reach it or deliberately decided not to mark it) are tabulated following the letter X.

TABLE E-1

Responses of Boys and of Girls in Grades 9 and 12 to 36 Selected Items in the Project TALENT Student Information Blank, by Academic Aptitude

56. How many books have you read (not including those required for school) in the past 12 months? Don't count magazines or comic books.

A. None
B. 1 to 5
C. 6 to 10
D. 11 to 15
E. 16 to 20
F. 21 or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	16	179	345	173	134	63	106	1CC886	2.872
10-20	7	229	356	185	87	72	70	81218	2.626
20-30	5	164	390	183	114	50	98	73405	2.792
30-40	3	207	387	156	122	60	68	77C63	2.645
40-50	7	149	374	205	84	67	121	64C56	2.910
50-60		195	361	194	77	46	127	62781	2.799
60-70	8	129	368	231	87	56	128	62753	2.958
70-80	14	101	335	213	121	77	153	748C7	3.195
80-90		72	337	204	121	105	161	75C68	3.334
90-100	2	48	283	225	116	92	236	82258	3.627

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	15	123	374	200	1C0	83	120	411E7	3.CC5
10-20	4	88	458	182	82	68	122	53403	2.951
20-30		68	441	219	115	57	99	62483	2.950
30-40	12	103	439	232	65	83	78	72764	2.821
40-50	7	122	351	209	123	62	132	75962	3.047
50-60	5	81	383	180	115	104	136	83533	3.187
60-70	5	105	355	182	123	91	145	82CC8	3.175
70-80		52	336	207	119	110	177	85813	3.429
80-90	5	46	354	178	134	104	186	87641	3.453
90-100	2	23	194	160	178	138	307	106427	4.134

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10		208	432	143	114	52	45	629CC	2.518
10-20	6	243	381	183	88	18	87	565C0	2.517
20-30	4	204	438	156	88	63	52	54465	2.525
30-40	4	186	358	256	101	43	57	47839	2.627
40-50		193	387	160	105	49	105	59918	2.745
50-60	4	131	430	149	104	86	100	50737	2.884
60-70		133	425	171	81	84	107	5637C	2.878
70-80		138	378	219	101	75	90	59566	2.867
80-90	3	122	380	191	87	73	147	75C88	3.051
90-100		73	375	175	147	89	141	63132	3.225

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10		157	489	149	105	49	50	37499	2.552
10-20		161	496	145	99	37	63	44846	2.544
20-30		130	433	197	89	57	93	56937	2.790
30-40	5	70	515	184	1C4	37	91	42988	2.796
40-50		90	416	205	89	76	125	57935	3.019
50-60	3	81	412	238	87	66	116	64906	2.993
60-70	10	47	402	251	1C4	71	125	60453	3.124
70-80	3	76	341	213	126	116	128	67383	3.249
80-90	3	64	292	255	106	118	166	76C69	3.421
90-100	7	22	213	199	155	127	284	60785	4.003

91. Which one of the following high school programs or curriculums is most like the one that you are taking? If you have not yet been assigned to a program, which do you expect you will take?

A. GENERAL--a program that does not necessarily prepare you either for college or for work, but in which you take subjects required for graduation and many subjects that you like.
B. COLLEGE PREPARATORY--a program that gives you the training and credits needed to work toward a regular Bachelor's degree in college.
C. COMMERCIAL or BUSINESS--a program that prepares you to work in an office; for example, as a secretary or bookkeeper.
D. VOCATIONAL--a program that prepares you to work in a shop or factory, or to enter a trade school, or become an apprentice after high school.
E. AGRICULTURE
F. A program very different from the above

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N
0-10	90	249	153	171	197	108	123	93961
10-20	67	188	193	105	234	144	135	76687
20-30	52	281	172	138	146	130	134	70159
30-40	38	281	240	104	173	114	88	74467
40-50	40	285	339	93	140	77	65	61972
50-60	7	288	336	56	179	80	61	62368
60-70	15	205	506	45	114	78	51	62339
70-80	7	228	561	40	91	46	33	75366
80-90	9	158	698	23	36	26	59	74427
90-100	10	125	774	22	26	28	25	81606

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N
0-10	98	262	141	325	116	50	106	38C74
10-20	83	289	186	287	102	43	93	49517
20-30	60	313	118	345	66	21	136	58949
30-40	28	286	145	404	40	15	110	71625
40-50	30	298	166	399	33	11	94	74245
50-60	22	230	251	389	48	5	76	82C87
60-70	24	255	309	346	14	2	74	80495
70-80	18	178	419	330	34		39	84304
80-90	9	168	534	240	17	5	36	87292
90-100	9	138	679	153	12		17	105704

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N
0-10	24	261	122	121	306	105	84	61442
10-20	14	276	183	139	285	62	54	56C53
20-30	2	417	183	112	196	48	45	54546
30-40	12	345	257	94	233	44	29	47452
40-50	14	401	291	58	160	75	15	59C68
50-60	8	266	451	55	123	73	31	50511
60-70	10	251	488	82	113	29	37	55820
70-80	6	165	710	36	59	19	11	59236
80-90	3	153	763	38	26	6	15	75C88
90-100	5	25	952	14	4		5	62788

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N
0-10	51	279	136	377	133	12	64	35688
10-20	27	265	133	444	89	8	60	43682
20-30	11	259	128	510	50	8	46	56311
30-40	10	241	172	485	52	5	46	42753
40-50	4	248	159	512	32		49	57725
50-60	6	158	240	519	42	3	39	64732
60-70	3	206	300	457	21		17	60865
70-80		172	402	395	15	6	10	67603
80-90	8	109	619	239	6	2	25	75652
90-100		55	837	95	3		10	61202

94. How old were you when you started first grade?

A. Four years old or younger
B. Five years old
C. Six years old
D. Seven years old
E. Eight years old
F. Nine years old or older

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	40	89	218	399	206	56	32	79496	3.C18
10-20	23	51	233	469	182	34	32	80C19	3.009
20-30	19	42	212	573	122	46	6	72412	2.934
30-40	15	72	231	528	130	28	10	76135	2.842
40-50	15	56	291	550	67	36		63497	2.735
50-60	12	41	237	566	132	22	3	62031	2.866
60-70		23	298	611	52	15		63253	2.739
70-80	5	32	247	649	66		6	75476	2.771
80-90	12	22	308	582	77	11		74189	2.747
90-100		27	253	669	50	2		82458	2.747

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	21	52	229	540	122	30	28	40948	2.930
10-20	10	39	190	583	146	31	11	53078	2.973
20-30	3	30	250	528	162	16	14	62271	2.925
30-40	7	36	279	518	135	25	6	73134	2.850
40-50	7	63	272	533	126	3	5	75947	2.743
50-60	16	53	275	577	83	8	4	82EC9	2.728
60-70	10	34	278	598	66	17	6	81642	2.772
70-80	17	37	311	556	84	7	5	84385	2.730
80-90	4	37	283	611	63	5		87700	2.715
90-100	2	23	281	636	54	5		106435	2.737

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	17	54	316	453	135	30	12	61825	2.807
10-20	8	53	247	538	151	12		56414	2.822
20-30		56	307	501	115	18	4	54676	2.744
30-40	9	26	324	518	111	9	12	47639	2.788
40-50	7	24	294	598	67	12	4	59512	2.761
50-60	8	24	365	523	75	13		50517	2.688
60-70		34	346	549	63	7		5637C	2.664
70-80	3	27	310	616	40	7		59366	2.690
80-90	3	31	349	576	41		3	75C88	2.638
90-100	2	33	374	565	19	2	6	63C02	2.602

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	29	50	284	516	130	15	6	36441	2.795
10-20	5	57	301	529	109	4		44632	2.702
20-30	3	40	320	531	103	6		56751	2.714
30-40		43	252	539	151	10	5	43213	2.848
40-50	4	21	397	478	97	7		5771C	2.671
50-60	7	36	308	581	66	6		64668	2.699
60-70		47	361	534	49	9		61C65	2.611
70-80	3	35	348	567	50			67389	2.631
80-90	3	16	365	570	43	4	3	76C67	2.663
90-100	8	16	351	579	51	3		60742	2.674

95. Since you started the first grade, how many full semesters of school have you missed?

A. None
B. One semester
C. Two semesters
D. Three semesters
E. Four semesters
F. Five semesters or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	48	502	167	133	94	56	48	97767	2.180
10-20	27	676	112	89	56	40	28	79705	1.758
20-30	20	761	109	33	45	34	19	72339	1.539
30-40	22	780	88	84	30	14	5	75629	1.425
40-50	19	799	89	55	27	15	15	63291	1.414
50-60		885	47	25	27	7	9	62781	1.249
60-70		878	86	18	12		6	63253	1.189
70-80	6	910	49	23	3	10	5	75452	1.168
80-90	8	920	48	28			3	74442	1.120
90-100	2	936	54	8			2	82258	1.081

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	30	615	171	95	36	23	60	40557	1.862
10-20	22	805	85	66	22	8	13	52451	1.383
20-30	25	824	84	46	20	13	13	60949	1.353
30-40	16	859	78	28	9	14	12	72492	1.275
40-50	13	890	72	21	4	7	6	75534	1.183
50-60	21	889	68	28	10	3	2	82222	1.177
60-70	11	916	57	9	5	9	5	81523	1.150
70-80	6	931	41	15			14	85321	1.138
80-90	2	938	47	15				87907	1.077
90-100	3	951	34	14	2			106302	1.066

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	30	771	103	64	22	24	16	61082	1.473
10-20	8	856	67	42	12	10	13	56398	1.290
20-30	3	856	84	24	9	15	11	54490	1.276
30-40	10	920	45	35				47582	1.115
40-50	4	925	43	25	3	4		59687	1.117
50-60	11	913	45	16	11	4	11	50366	1.180
60-70		924	48	18	7	3		56370	1.118
70-80	2	950	38	9		3		59436	1.068
80-90	2	975	19	2			3	75122	1.040
90-100	3	982	12	3		3		62925	1.032

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	32	898	71	17	5	3	6	36327	1.163
10-20	24	899	72	10		5	14	43775	1.183
20-30	7	933	39	17		8	4	56524	1.122
30-40	5	897	58	25	10	5	5	42982	1.182
40-50	7	917	50	20	3		10	57535	1.149
50-60	3	941	47	6		3	3	64911	1.087
60-70	2	938	35	17	7		3	60935	1.106
70-80	3	939	39	7	3	3	9	67389	1.120
80-90	6	943	28	16	6		8	75855	1.117
90-100	4	952	33	15				60982	1.063

97. On the average, how many hours do you study each week? Include study periods in school as well as studying done at home.

A. None
B. About 1-4 hours per week
C. About 5-9 hours per week
D. About 10-14 hours per week
E. About 15-19 hours per week
F. About 20 or more hours per week

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	49	78	306	265	185	84	83	97654	3.140
10-20	23	81	273	303	188	81	75	79993	3.140
20-30	16	58	265	310	173	126	68	72596	3.247
30-40	15	51	278	295	212	115	48	76136	3.207
40-50	26	23	200	372	247	114	43	62844	3.358
50-60	4	19	151	353	286	145	45	62550	3.522
60-70	19	14	182	382	249	133	39	62085	3.423
70-80	11	9	195	372	240	140	42	75031	3.435
80-90	6	16	138	371	238	157	81	74641	3.625
90-100	3	8	103	380	276	177	55	82252	3.676

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	25	80	354	212	117	120	117	40774	3.195
10-20	12	48	351	261	196	78	66	52987	3.101
20-30	15	38	329	275	177	123	57	61543	3.191
30-40	20	22	243	320	221	130	64	72192	3.387
40-50	18	4	232	337	250	118	58	75118	3.420
50-60	14	7	183	394	247	120	49	82773	3.438
60-70	6	22	161	310	273	146	89	81511	3.628
70-80	4	6	188	325	270	140	71	85480	3.565
80-90	3	4	105	310	351	175	56	87833	3.754
90-100		5	74	290	344	221	67	106647	3.904

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	23	40	334	346	171	85	24	61503	2.999
10-20	7	61	306	310	236	56	31	56443	3.013
20-30	8	50	282	331	207	111	19	54252	3.102
30-40	9	23	367	367	163	58	22	47594	2.932
40-50		59	293	283	244	85	35	59918	3.110
50-60	8	26	225	417	204	82	46	50531	3.228
60-70	4	26	225	318	231	128	73	56164	3.428
70-80	3	22	170	356	250	134	67	59366	3.507
80-90		8	144	362	264	157	65	75308	3.613
90-100	9	10	91	279	269	222	129	62582	3.990

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	32	5	308	363	176	85	63	36327	3.216
10-20	9	5	255	370	197	135	38	44425	3.317
20-30		16	250	396	187	110	41	56937	3.246
30-40			187	282	328	127	75	43213	3.620
40-50	4	10	197	381	225	149	38	57710	3.420
50-60	3	15	139	321	320	151	55	64911	3.618
60-70		15	160	395	250	145	36	61065	3.459
70-80		8	129	330	274	191	69	67603	3.719
80-90	12		99	307	279	172	142	75388	3.952
90-100	7		55	238	311	232	164	60777	4.211

98. Starting with courses in the 9th grade, how many semesters (half-years) have you taken in Science courses (biology, chemistry, general science, physics, etc.)

A. None
B. One or two
C. Three or four
D. Five
E. Six
F. Seven or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	63	222	391	152	91	79	66	96423	2.612
10-20	33	236	510	124	78	32	19	79218	2.219
20-30	8	264	569	84	42	25	16	73182	2.040
30-40	15	272	588	80	21	19	21	76150	1.991
40-50	22	244	615	60	33	25	23	63095	2.049
50-60		273	631	60	20	3	13	62781	1.888
60-70		249	653	66	12	7	13	63253	1.911
70-80	8	235	675	61	14	12	3	75249	1.901
80-90	6	284	665	34	7	8	2	74641	1.795
90-100	2	244	701	31	2	13	9	82258	1.864

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	79	272	508	111	59	15	35	38725	2.143
10-20	31	264	588	90	17	31	10	52012	1.992
20-30	12	270	658	29	8	21	14	61722	1.895
30-40	29	228	696	31	17	14	14	71575	1.935
40-50	20	271	705	10	6	3	6	75017	1.781
50-60	10	204	749	38	5	2	2	83075	1.860
60-70	12	278	683	27	5	1	5	81486	1.783
70-80	6	264	697	29	2		7	85321	1.800
80-90	2	274	696	24	2	1	2	87893	1.768
90-100	5	267	667	49	3	6	8	106092	1.839

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	29	47	551	262	43	58	39	61102	2.629
10-20	6	37	522	294	32	61	54	56509	2.720
20-30	8	8	512	326	50	75	30	54243	2.760
30-40	11	12	412	358	47	105	65	47503	3.016
40-50		32	350	332	30	152	104	59918	3.231
50-60	4	29	283	319	47	174	147	50737	3.496
60-70		21	229	340	40	171	200	56370	3.711
70-80	6		176	303	30	246	244	59224	4.078
80-90	3		108	307	54	231	300	75088	4.308
90-100			59	227	51	256	407	63132	4.724

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	29	47	628	248	37	15	25	36441	2.422
10-20		29	624	259	15	61	12	44846	2.493
20-30	4	29	605	295	36	18	18	56737	2.462
30-40	13	29	514	334	23	76	24	42642	2.677
40-50		27	492	329	18	89	45	57935	2.786
50-60	6	20	447	361	23	100	49	64731	2.882
60-70		22	378	435	16	104	44	61065	2.932
70-80		26	318	419	27	155	56	67603	3.136
80-90	6	3	231	381	38	219	128	75814	3.624
90-100		7	128	311	33	331	189	61202	4.121

99. Starting with courses in the 9th grade, how many semesters (half-years) have you taken in Foreign languages (French, German, Spanish, Latin, etc.)

A. None
B. One or two
C. Three or four
D. Five
E. Six
F. Seven or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	82	549	131	138	91	59	33	94727	2.079
10-20	42	743	94	60	54	38	12	78541	1.585
20-30	12	775	105	26	45	17	32	72934	1.519
30-40	33	736	168	34	24	25	12	74779	1.471
40-50	22	765	159	17	24	27	8	63091	1.416
50-60	11	705	236	18	19	9	12	62068	1.429
60-70		676	299	12	3	6	3	63253	1.375
70-80	4	568	398	10	7	9	9	75556	1.518
80-90	12	422	561	14			3	74187	1.603
90-100		352	628	16		2	2	82458	1.677

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	66	620	175	84	51	31	39	39212	1.815
10-20	22	803	103	39	8	12	34	52438	1.426
20-30	14	807	152	19	6	11	5	61596	1.279
30-40	42	812	153	20		3	12	70696	1.263
40-50	19	847	141		3	3	6	75C64	1.190
50-60	12	731	244	24			1	82559	1.299
60-70	17	676	311	6	3	1	2	81C25	1.349
70-80	12	563	425	8			4	84767	1.460
80-90		477	506	13		1	2	88C93	1.549
90-100	2	350	622	21		2	6	106447	1.698

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	33	703	174	70	19	7	27	60890	1.532
10-20	6	723	180	60	22	7	8	56508	1.434
20-30	15	761	143	63	12	12	8	5387C	1.394
30-40	3	679	189	80	17	25	9	47915	1.547
40-50	3	704	183	93		4	16	59732	1.464
50-60	12	540	255	140	11	28	26	50312	1.809
60-70	4	472	226	198	14	36	54	56137	2.078
70-80	3	372	196	308	7	63	54	59380	2.356
80-90	3	325	186	286	8	94	101	75098	2.662
90-100		171	132	430	15	100	151	63132	3.195

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	41	583	318	79	11	3	6	36C31	1.551
10-20	9	727	180	69	12		11	44433	1.412
20-30	17	635	227	115	13	6	4	56CC2	1.540
30-40	12	588	213	126	22	17	34	42680	1.768
40-50	3	606	225	131	7	24	6	57735	1.635
50-60	10	451	267	173	17	49	44	64499	2.077
60-70		421	257	213	23	40	46	61C65	2.141
70-80	2	341	241	264	8	62	84	67473	2.459
80-90	9	231	180	347	8	85	149	75634	2.983
90-100		116	155	276	19	140	294	61202	3.793

102. Starting with courses in the 9th grade, how many semesters (half-years) have you taken in Business or commercial courses (typing, bookkeeping, shorthand, business law, commercial arithmetic, etc.)

A. None
B. One or two
C. Three or four
D. Five
E. Six
F. Seven or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	76	355	269	165	91	61	58	95245	2.408
10-20	27	500	301	97	57	22	22	79693	1.866
20-30	32	601	246	85	26	23	19	71469	1.682
30-40	34	632	250	54	28	20	16	74729	1.603
40-50	24	686	232	31	13	20	19	62998	1.505
50-60	19	747	194	24	5	20	10	61637	1.387
60-70	10	799	162	14	10	9	7	62622	1.289
70-80	11	786	180	14	6		14	75C51	1.297
80-90	23	785	205	8		3		73369	1.231
90-100	2	784	207	9				82258	1.224

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	04	526	244	92	54	25	58	37880	1.984
10-20	40	618	282	51	13	23	13	51567	1.582
20-30	16	730	214	18	16	15	7	61497	1.393
30-40	41	704	236	28	9	6	17	70785	1.429
40-50	25	766	188	16	12	13	6	74639	1.334
50-60	27	738	218	19	8	16		81714	1.346
60-70	11	737	240	7	4	5	7	81580	1.322
70-80	12	818	169	8		4	1	84777	1.207
80-90	9	822	168	9		1		87282	1.192
90-100	10	837	146	7	3	3	4	1C5602	1.202

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	37	223	465	201	50	31	30	60645	2.290
10-20	6	158	455	207	62	61	57	56511	2.583
20-30	3	152	431	272	44	62	39	5449C	2.551
30-40	9	260	385	246	20	49	39	47594	2.331
40-50		240	437	194	32	53	43	59918	2.349
50-60	10	241	459	200	22	46	32	504C7	2.271
60-70	2	293	407	153	17	57	74	56240	2.359
70-80	4	291	494	156	22	7	30	59341	2.052
80-90		350	483	103	17	13	34	75308	1.960
90-100	9	380	535	75	3		7	62561	1.729

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	42	191	478	164	23	33	110	36CC3	2.560
10-20	3	65	323	269	71	128	144	44726	3.309
20-30	9	45	276	304	67	121	187	564C4	3.504
30-40	9	72	222	255	53	137	261	428C7	3.746
40-50	4	35	251	221	72	166	256	57722	3.851
50-60	8	52	215	213	51	155	315	64999	3.986
60-70		65	240	204	51	142	297	61C65	3.857
70-80	11	84	257	195	51	135	277	66866	3.729
80-90	7	119	384	182	30	66	219	75721	3.196
90-100	3	186	460	155	13	101	85	61CC2	2.636

103. Starting with courses in the 9th grade, how many semesters (half-years) have you taken in Vocational, shop, or agricultural courses

A. None
B. One or two
C. Three or four
D. Five
E. Six
F. Seven or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	80	255	348	211	70	73	43	94832	2.487
10-20	29	312	441	153	31	25	38	79537	2.130
20-30	30	285	562	82	33	25	12	71611	1.987
30-40	24	313	502	104	32	31	19	75449	2.020
40-50	21	366	466	80	23	44	19	63158	1.970
50-60	7	399	500	68	26	6		62362	1.741
60-70	9	453	474	55	9	4	6	62667	1.656
70-80	8	489	439	47	5	8	11	75270	1.637
80-90	20	640	329	21	3	4	3	73583	1.412
90-100	4	698	272	27			4	82128	1.345

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	98	606	138	108	38	37	74	38C49	1.985
10-20	54	793	112	45	8	13	29	50855	1.424
20-30	15	839	92	26	13	20	10	61467	1.313
30-40	35	861	108	14	3	3	12	71185	1.215
40-50	33	874	99	17	3		7	74C39	1.178
50-60	36	882	112	4			1	81C13	1.128
60-70	18	861	110	19	3	2	5	80976	1.193
70-80	33	843	147	5			5	83041	1.181
80-90	11	871	114	10	2		2	87162	1.154
90-100	10	891	95	11			3	1C5628	1.132

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	33	183	281	248	66	94	129	60882	2.992
10-20	23	174	261	246	69	86	165	55550	3.126
20-30	2	202	261	214	61	72	191	54546	3.111
30-40	9	201	233	195	84	122	167	47615	3.193
40-50	20	216	186	230	25	135	208	58742	3.303
50-60	10	210	271	195	40	110	174	50396	3.090
60-70		279	269	181	34	112	124	5637C	2.804
70-80	3	394	188	202	19	75	122	59366	2.559
80-90	4	397	303	134	18	59	88	74978	2.301
90-100	4	526	288	111	12	22	40	62872	1.835

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	42	721	156	64	11	15	33	36CC3	1.542
10-20	12	771	114	72	14	15	15	44314	1.432
20-30	14	794	128	44		15	19	56144	1.372
30-40	5	819	87	52	5	18	20	43C13	1.374
40-50	4	828	65	42	10	17	38	57722	1.440
50-60	9	803	111	37	7	17	25	64580	1.398
60-70	7	794	81	47	27	25	27	60648	1.488
70-80		781	123	50	3	15	28	676C3	1.432
80-90	9	813	110	37	9	14	16	756C5	1.349
90-100	2	790	131	42		13	24	61C72	1.388

104. Starting with courses in the 9th grade, how many semesters (half-years) have you taken in Mathematics courses (algebra, geometry, trigonometry, etc.) Do not count commerical arithmetic or shop mathematics.

A. None
B. One or two
C. Three or four
D. Five
E. Six
F. Seven or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	74	243	365	167	106	49	70	95351	2.563
10-20	24	258	506	131	40	28	37	79874	2.186
20-30	22	213	608	83	46	28	23	72169	2.137
30-40	18	211	622	106	32	12	16	75950	2.059
40-50	26	167	712	78	7	17	20	62848	2.053
50-60	7	122	755	68	22	14	19	62368	2.106
60-70	3	102	824	43	10	11	9	63067	2.033
70-80	13	55	846	66	8	15	11	74898	2.112
80-90	14	19	915	33	3	13	17	74003	2.127
90-100	3	30	906	39	5	3	17	82225	2.098

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	33	207	401	260	55	44	33	60882	2.428
10-20	6	120	392	325	53	58	53	56507	2.697
20-30		133	343	365	47	79	32	54676	2.693
30-40	4	79	307	332	68	126	88	47845	3.120
40-50		64	286	313	55	106	176	59918	3.382
50-60	4	66	220	239	75	181	219	50737	3.742
60-70	3	40	131	275	75	225	254	56184	4.075
70-80		21	60	264	47	209	399	59566	4.559
80-90		7	45	144	35	192	577	75308	5.092
90-100			3	72	40	131	753	63132	5.559

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	86	332	412	110	48	52	46	38475	2.215
10-20	38	336	528	73	13	37	14	51679	1.928
20-30	12	294	572	63	22	17	32	61749	1.992
30-40	32	267	647	32	8	16	29	71389	1.945
40-50	28	221	740	17	15		6	74437	1.850
50-60	15	177	755	53	3	4	9	82661	1.927
60-70	13	159	800	33	5		3	81354	1.895
70-80	4	129	835	20	8	5	4	85507	1.935
80-90		60	907	19		5	8	88053	2.009
90-100	4	22	935	23		10	10	106235	2.070

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	29	248	543	182	12	5	9	36434	2.010
10-20	15	185	537	246	9	5	19	44204	2.171
20-30	4	172	561	206	15	26	20	56737	2.224
30-40		122	531	259	24	55	9	43213	2.387
40-50	4	163	451	255	9	93	29	57722	2.505
50-60	3	132	438	298	15	90	28	64914	2.576
60-70		109	346	368	19	107	52	61065	2.825
70-80		47	320	370	24	153	85	67603	3.174
80-90		28	174	345	31	262	159	76281	3.801
90-100	4	10	73	200	44	272	400	60985	4.696

106-113. The following questions ask you to report your grades in courses you have taken in the ninth grade or later. Please consider only semester grades. If you have not taken any courses in the topic, skip the item. In these questions choose the one answer that best describes your grades. Mark your answers as follows:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(If your school does not use letter grades, please use the following equivalents:
For a grade of A : Excellent; 90-100
For a grade of B : Good; 80-89
For a grade of C : Average; 70-79
For a grade of D : Fair; 60-69
For a grade below D : Failing; 59 or lower)

106. My grades in mathematics have been:

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	75	80	129	285	220	167	120	95293	3.623
10-20	37	51	123	261	233	229	103	78869	3.774
20-30	37	34	129	224	298	234	82	71169	3.814
30-40	46	31	106	228	249	295	91	73906	3.944
40-50	55	59	106	207	271	263	94	61105	3.853
50-60	31	96	104	174	371	198	57	60912	3.642
60-70	14	93	126	195	341	201	43	62402	3.558
70-80	14	77	110	248	354	162	49	74833	3.561
80-90	10	133	151	256	296	144	21	74297	3.230
90-100	4	271	119	293	234	75	7	82108	2.745

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	39	23	134	200	305	286	52	60536	3.856
10-20	7	39	93	223	297	294	55	56421	3.879
20-30	12	32	60	219	345	321	23	54044	3.933
30-40	9	48	88	204	333	286	41	47604	3.844
40-50	15	36	86	225	377	252	25	59025	3.799
50-60	9	71	58	172	420	252	28	50491	3.806
60-70	26	54	74	239	401	208	14	54938	3.697
70-80		52	96	213	439	188	11	59566	3.650
80-90	6	79	147	280	361	133		74855	3.322
90-100	2	272	223	290	186	29		63002	2.477

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	92	70	103	248	247	206	127	38283	3.749
10-20	51	37	96	200	230	317	120	51002	4.054
20-30	27	31	92	242	288	279	68	60811	3.898
30-40	55	50	92	136	309	328	85	69794	4.029
40-50	30	25	96	175	343	274	87	74287	4.005
50-60	52	63	91	251	303	222	70	79760	3.743
60-70	27	61	92	211	351	223	61	80245	3.767
70-80	33	120	101	237	350	140	52	83043	3.445
80-90	26	146	148	328	246	109	23	85826	3.093
90-100	19	278	135	269	238	69	11	104615	2.719

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	38	28	71	249	276	307	69	36130	3.970
10-20	27	54	97	175	299	356	18	43658	3.861
20-30	50	36	63	164	426	279	33	54221	3.948
30-40	26	43	94	208	332	292	31	42130	3.829
40-50	40	50	78	209	391	240	33	55700	3.792
50-60	17	77	106	235	398	173	11	64031	3.519
60-70	26	81	95	287	322	195	19	59546	3.513
70-80	6	80	119	289	349	150	13	67171	3.408
80-90	11	112	148	320	331	83	6	75415	3.144
90-100		287	215	307	177	11	3	61202	2.420

107. My grades in science courses have been:

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	120	93	161	241	214	171	119	91498	3.568
10-20	115	56	132	231	230	210	141	73365	3.829
20-30	157	66	120	189	274	254	98	63758	3.825
30-40	137	40	105	202	302	262	89	67994	3.909
40-50	155	44	139	196	265	244	111	55810	3.859
50-60	164	87	105	213	361	209	26	53955	3.577
60-70	183	84	132	254	332	149	49	53468	3.477
70-80	207	124	102	293	335	122	24	62844	3.301
80-90	214	159	124	300	281	101	35	61840	3.147
90-100	240	280	156	315	211	36	3	66491	2.577

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	47	27	134	240	338	241	19	60079	3.691
10-20	22	7	100	253	358	244	38	55629	3.845
20-30	33	8	118	247	305	296	27	52937	3.843
30-40	14	35	122	191	405	229	19	47398	3.729
40-50	15	24	98	216	424	223	15	59039	3.768
50-60	20	12	141	224	401	202	19	49906	3.698
60-70	32	35	94	231	409	203	28	54611	3.734
70-80	8	53	98	273	416	139	20	59110	3.550
80-90	3	79	136	312	364	104	5	75075	3.294
90-100	2	217	159	361	229	31	3	63002	2.707

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	161	39	143	267	265	166	119	36010	3.734
10-20	193	33	140	196	239	284	108	44550	3.926
20-30	219	26	110	238	242	250	133	51271	3.977
30-40	223	51	110	186	275	289	90	60208	3.909
40-50	291	38	76	204	320	267	96	59269	3.989
50-60	186	32	108	222	385	193	61	70744	3.781
60-70	316	23	122	227	340	236	51	62636	3.796
70-80	251	103	91	283	361	124	38	68820	3.426
80-90	259	127	149	311	307	104	2	69946	3.116
90-100	288	252	164	309	230	40	6	82808	2.659

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	29	25	102	239	367	206	61	36441	3.808
10-20	22	33	134	155	419	251	8	43894	3.744
20-30	41	50	65	205	415	226	38	54701	3.816
30-40	23	65	102	218	378	213	24	42236	3.645
40-50	35	24	128	248	405	171	24	55949	3.642
50-60	17	59	129	295	388	126	3	64067	3.402
60-70	32	62	128	307	384	103	15	59196	3.383
70-80	13	61	158	293	387	86	15	66743	3.324
80-90	14	96	121	368	368	47		75245	3.149
90-100	2	223	198	393	166	20		61072	2.561

108. My grades in foreign languages have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	469	137	164	233	177	162	127	69753	3.445
10-20	653	106	124	259	210	149	151	49500	3.627
20-30	904	67	88	251	261	184	150	38757	3.856
30-40	671	70	104	171	306	221	128	46255	3.888
40-50	1219	37	123	213	229	207	192	29060	4.022
50-60	1183	105	95	190	247	191	172	28753	3.839
60-70	1011	57	80	225	295	206	137	31448	3.923
70-80	670	75	125	204	307	193	96	45435	3.707
80-90	494	130	145	212	257	191	64	50244	3.426
90-100	482	265	150	216	230	106	33	55622	2.862

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	423	77	95	238	208	252	131	44215	3.855
10-20	552	51	59	196	277	253	164	36618	4.112
20-30	729	63	99	167	219	296	155	31624	4.053
30-40	757	96	68	125	277	272	162	27343	4.046
40-50	731	74	78	206	313	195	135	34621	3.884
50-60	703	51	62	178	268	307	134	29902	4.120
60-70	554	40	69	231	280	287	94	36276	3.985
70-80	415	62	87	141	396	254	60	42102	3.872
80-90	326	85	93	229	339	210	44	56808	3.629
90-100	181	202	173	302	242	71	9	53477	2.835

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	497	70	130	317	251	140	93	27516	3.540
10-20	1081	86	98	280	222	162	150	25769	3.727
20-30	1353	81	121	237	225	215	121	26549	3.737
30-40	1483	104	132	229	264	135	134	29666	3.597
40-50	2120	125	66	183	327	188	111	24519	3.720
50-60	1554	72	122	206	338	156	106	32867	3.702
60-70	1410	101	93	232	322	147	105	34200	3.633
70-80	1089	106	109	269	359	111	46	41088	3.395
80-90	761	176	120	308	278	108	11	50030	3.056
90-100	489	362	142	259	176	54	8	71627	2.443

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	503	74	111	244	283	211	76	24554	3.675
10-20	1138	118	108	219	334	165	56	20976	3.488
20-30	833	44	123	178	306	283	67	31065	3.861
30-40	785	89	77	220	302	231	82	24205	3.756
40-50	914	62	110	229	330	195	74	30262	3.706
50-60	630	78	109	264	371	145	34	39553	3.497
60-70	616	55	147	296	299	145	58	37778	3.506
70-80	403	90	147	349	277	115	23	48199	3.248
80-90	287	149	180	340	268	59	4	59257	2.919
90-100	129	385	180	279	110	46		54191	2.252

109. My grades in history and social studies courses have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	275	89	153	222	247	172	117	80350	3.612
10-20	246	57	139	267	204	219	113	65644	3.729
20-30	315	41	108	234	304	203	110	56131	3.849
30-40	277	45	93	198	318	244	102	60516	3.931
40-50	384	46	145	218	281	223	88	46595	3.753
50-60	385	88	81	238	399	159	35	45344	3.563
60-70	337	98	117	272	345	138	30	47308	3.398
70-80	360	110	139	272	333	128	17	55810	3.284
80-90	318	181	150	300	277	81	10	56945	2.956
90-100	300	277	231	267	176	39	11	54976	2.499

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	57	29	118	264	292	248	50	59536	3.760
10-20	23	30	106	240	304	272	49	55547	3.828
20-30	19	34	122	230	324	247	43	53633	3.756
30-40	25	43	117	198	373	223	45	46885	3.750
40-50	17	33	132	269	357	196	12	58925	3.590
50-60	15	41	128	272	405	143	11	50171	3.515
60-70	7	45	134	273	405	132	12	55570	3.480
70-80	14	88	149	291	384	79	9	56726	3.245
80-90	3	120	157	340	293	90		75075	3.076
90-100		228	219	369	152	27	5	63132	2.547

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	365	55	174	293	252	131	94	30807	3.514
10-20	399	50	124	260	247	204	114	38314	3.776
20-30	406	45	143	199	311	203	100	44425	3.785
30-40	455	69	144	193	321	212	60	50605	3.644
40-50	546	54	92	218	392	187	58	49478	3.741
50-60	558	60	120	198	402	151	68	53886	3.668
60-70	506	65	122	226	376	177	34	54752	3.581
70-80	529	127	149	321	312	76	15	56111	3.105
80-90	612	125	172	323	296	78	6	54646	3.049
90-100	580	269	141	369	160	56	5	67517	2.607

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	47	35	110	225	387	205	38	35804	3.732
10-20	32	22	86	278	341	247	25	43471	3.783
20-30	33	51	108	241	329	256	15	55130	3.676
30-40	27	72	182	216	320	207	3	42061	3.417
40-50	16	58	141	247	370	170	14	57048	3.495
50-60	16	119	138	276	321	130	15	64114	3.249
60-70	10	80	163	310	343	100	4	60459	3.232
70-80		90	195	328	324	60	4	67603	3.080
80-90		136	217	394	217	36		76281	2.800
90-100	4	306	259	288	135	12		60977	2.288

110. My grades in English courses have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	93	65	145	269	200	204	117	93774	3.685
10-20	84	44	104	248	269	224	112	75484	3.860
20-30	66	39	97	206	285	286	87	69252	3.945
30-40	67	24	94	251	331	228	72	72433	3.861
40-50	48	16	131	203	282	267	101	61524	3.954
50-60	60	49	127	175	397	203	49	59243	3.723
60-70	59	37	135	239	385	163	42	59729	3.626
70-80	35	71	125	277	347	139	42	73342	3.482
80-90	35	132	107	308	369	73	12	72546	3.179
90-100	30	234	144	348	230	37	8	80051	2.716

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	38	17	98	234	325	252	75	60569	3.921
10-20	51	2	65	235	346	309	43	54102	4.023
20-30	23	8	69	216	392	271	44	53468	3.983
30-40	18	31	81	195	403	274	15	47183	3.854
40-50		14	78	203	410	264	31	59918	3.924
50-60	21	13	118	253	401	192	24	49869	3.711
60-70	10	26	78	246	414	217	19	55817	3.776
70-80	7	39	105	266	451	134	5	59126	3.552
80-90	11	46	170	326	350	109		74468	3.307
90-100	13	199	191	410	177	22		62315	2.633

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	178	60	158	319	291	93	79	35463	3.437
10-20	88	46	129	249	259	248	69	49289	3.742
20-30	54	37	139	244	313	206	61	59296	3.697
30-40	59	48	121	233	357	196	46	69519	3.672
40-50	60	20	122	280	354	176	48	72193	3.688
50-60	82	46	150	282	367	121	33	77539	3.467
60-70	46	60	127	330	337	129	17	78826	3.400
70-80	55	120	153	329	340	50	8	81320	3.069
80-90	30	186	142	391	239	33	8	85523	2.813
90-100	12	348	136	393	106	17		105335	2.308

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	32	23	130	283	330	209	26	36327	3.649
10-20	28	36	126	281	393	160	5	43641	3.530
20-30	39	36	113	265	430	147	10	54824	3.569
30-40	5	25	164	298	367	146		43013	3.445
40-50	11	56	137	306	396	104		57291	3.355
50-60	12	84	198	319	320	67	2	64387	3.102
60-70	19	99	162	423	287	30		59926	2.987
70-80	5	132	248	353	239	28		67259	2.783
80-90	11	158	267	413	150	11		75483	2.590
90-100	20	314	278	252	50	6		60064	1.955

111. My grades in vocational courses have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	306	81	137	264	259	188	71	78443	3.548
10-20	359	83	151	287	257	149	73	60196	3.458
20-30	457	60	159	224	365	153	38	50662	3.508
30-40	432	70	100	332	272	151	75	53969	3.558
40-50	596	101	122	246	348	169	15	40391	3.409
50-60	734	79	121	258	345	163	34	36198	3.494
60-70	662	165	152	331	271	70	11	38060	2.963
70-80	728	154	122	273	374	72	5	43902	3.101
80-90	1178	169	164	349	242	52	23	34464	2.912
90-100	1461	166	210	342	255	16	11	33508	2.777

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	183	88	185	299	281	111	35	53178	3.246
10-20	172	81	163	246	353	141	16	48490	3.356
20-30	265	64	175	323	291	138	9	43222	3.293
30-40	207	109	158	254	367	84	28	39791	3.243
40-50	174	72	181	344	306	77	21	51027	3.196
50-60	207	117	163	281	387	48	5	42194	3.102
60-70	272	105	202	315	304	72	3	44322	3.043
70-80	437	120	157	311	352	55	5	41442	3.082
80-90	631	132	190	327	282	68		46183	2.963
90-100	924	182	189	334	272	22		32818	2.764

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	615	50	138	307	204	147	152	25878	3.717
10-20	989	86	137	283	229	198	67	26555	3.518
20-30	1117	90	114	238	252	211	95	29521	3.666
30-40	1212	90	127	229	274	208	72	33297	3.600
40-50	1782	81	173	221	352	128	46	27497	3.410
50-60	1794	52	142	281	383	84	58	30041	3.480
60-70	2009	116	137	278	364	88	17	27394	3.222
70-80	2094	123	203	342	265	45	23	27739	2.974
80-90	3237	165	159	378	283	10	6	20791	2.831
90-100	3546	224	191	392	147	38	8	23461	2.607

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	373	54	194	310	300	127	16	27319	3.301
10-20	572	106	168	304	292	104	26	28526	3.198
20-30	587	64	131	358	306	119	21	35868	3.347
30-40	735	72	204	311	304	86	23	24904	3.198
40-50	705	81	165	308	342	80	24	33972	3.246
50-60	789	127	217	357	217	66	16	36406	2.928
60-70	947	98	163	397	311	28	4	31359	3.021
70-80	823	192	237	367	160	27	17	37089	2.645
80-90	1488	217	273	322	181	6		30663	2.486
90-100	1739	433	291	215	50	11		22348	1.916

112. My grades in business or commercial courses have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	400	85	153	240	258	144	121	73199	3.584
10-20	528	103	126	292	226	155	98	53550	3.497
20-30	827	97	108	194	325	190	87	40400	3.662
30-40	760	73	121	239	336	147	84	43910	3.617
40-50	1015	101	139	213	243	185	119	31995	3.630
50-60	1136	74	98	220	369	176	62	29389	3.661
60-70	1536	71	116	287	335	129	62	24938	3.520
70-80	1770	156	130	244	335	95	40	27393	3.203
80-90	1935	122	188	318	288	77	7	25574	3.030
90-100	2768	190	193	360	191	49	17	21883	2.765

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	220	58	116	270	292	219	44	51551	3.631
10-20	222	67	111	203	341	253	26	46504	3.678
20-30	249	51	139	249	291	232	37	43783	3.624
30-40	292	71	141	218	366	169	36	37194	3.528
40-50	330	68	100	228	433	148	23	45058	3.561
50-60	371	58	131	270	410	116	15	37131	3.440
60-70	382	97	111	307	343	127	16	40792	3.338
70-80	414	98	141	249	363	138	10	42114	3.332
80-90	733	122	150	322	321	84		43446	3.096
90-100	797	223	164	320	259	34		35135	2.717

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	714	129	101	232	237	133	168	24382	3.647
10-20	1008	62	174	276	181	232	76	26697	3.575
20-30	1127	64	120	257	270	202	87	29375	3.689
30-40	1639	109	113	179	296	186	116	27911	3.684
40-50	2056	135	119	203	336	83	123	25031	3.482
50-60	1960	79	128	317	263	119	94	28352	3.496
60-70	1904	97	150	307	279	124	44	28388	3.315
70-80	2503	125	134	274	301	139	27	24498	3.276
80-90	3085	152	180	354	259	44	10	21567	2.893
90-100	3799	203	212	304	194	87		22225	2.750

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	196	109	121	294	346	119	11	31357	3.278
10-20	121	61	155	235	409	114	25	40001	3.435
20-30	56	97	123	285	350	135	10	53514	3.333
30-40	93	66	208	341	249	122	14	39529	3.193
40-50	86	78	206	250	372	82	12	53335	3.209
50-60	87	117	183	322	295	74	9	59518	3.053
60-70	92	148	143	385	268	54	2	55512	2.943
70-80	147	157	225	346	224	37	10	58935	2.790
80-90	186	214	174	339	230	35	8	64326	2.724
90-100	402	398	213	280	100	10		43639	2.112

113. My grades in all courses starting with the ninth grade have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	150	99	151	282	204	194	70	89082	3.453
10-20	115	64	127	275	219	264	52	73356	3.647
20-30	134	89	118	204	311	249	28	65066	3.598
30-40	126	82	80	206	375	218	40	68621	3.685
40-50	103	53	126	185	379	210	47	58468	3.707
50-60	100	42	80	234	442	183	18	57095	3.698
60-70	73	62	139	237	422	137	4	58949	3.444
70-80	61	64	109	262	424	131	11	71526	3.484
80-90	70	66	154	323	385	68	3	70182	3.245
90-100	43	130	198	368	259	44		79055	2.890

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	101	47	89	240	382	213	28	57142	3.712
10-20	19	61	60	244	366	254	15	55778	3.738
20-30	23	19	46	227	405	277	26	53469	3.954
30-40	51	22	90	199	438	227	24	45703	3.831
40-50	15	10	56	223	507	202	2	50042	3.842
50-60	24	12	81	220	485	195	6	49710	3.789
60-70	26	33	78	212	508	164	4	54940	3.703
70-80	22	26	87	229	520	114	24	58270	3.681
80-90	26	24	113	328	451	78	5	73089	3.462
90-100	15	121	198	468	187	23	4	62175	2.803

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	291	106	165	283	220	137	89	32364	3.383
10-20	221	44	113	257	314	231	41	43911	3.696
20-30	148	52	92	211	348	272	25	54411	3.773
30-40	199	39	92	188	389	264	29	61413	3.833
40-50	143	56	91	201	464	173	14	66920	3.651
50-60	108	46	121	211	431	167	23	75767	3.621
60-70	94	33	90	253	463	147	15	75334	3.646
70-80	70	72	133	303	407	78	8	80211	3.309
80-90	72	69	124	406	346	50	4	82142	3.196
90-100	39	143	195	434	203	24	1	102676	2.773

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	113	56	100	290	389	152	12	33677	3.518
10-20	60	23	102	240	431	191	13	42325	3.704
20-30	16	28	63	233	491	175	11	56018	3.757
30-40	52	24	117	240	471	134	13	41092	3.614
40-50	37	21	132	217	479	143	8	55894	3.614
50-60	24	33	144	297	442	70	14	63621	3.414
60-70	13	26	89	414	430	41		60284	3.370
70-80	20	22	173	392	382	28	3	66285	3.231
80-90	23	57	127	563	235	15	3	74594	3.035
90-100	25	130	290	483	89	7		59732	2.552

TABLE E-1 (continued)

176. How many books are in your home?

A. None, or very few (0-10)
B. A few books (11-25)
C. One bookcase full (26-100)
D. Two bookcases full (101-250)
E. Three or four bookcases full (251-500)
F. A room full--a library (501 or more)

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	87	157	246	286	139	72	79	94269	2.980
10-20	45	168	274	313	127	92	25	78281	2.777
20-30	32	136	238	349	175	74	28	71508	2.896
30-40	19	111	253	372	160	85	19	75850	2.913
40-50	23	100	198	389	200	81	33	62903	3.064
50-60	17	74	201	423	209	78	14	61738	3.056
60-70	8	75	193	393	209	113	27	62723	3.183
70-80	13	48	181	380	219	120	52	74942	3.340
80-90	7	26	130	385	252	149	59	74538	3.545
90-100	5	16	100	350	280	198	55	82025	3.707

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	86	188	322	247	112	74	57	38478	2.732
10-20	39	176	285	364	117	53	54	51603	2.850
20-30	32	126	280	371	134	60	29	60535	2.809
30-40	10	130	218	402	143	69	33	72882	2.908
40-50	19	124	213	373	182	74	34	75085	2.972
50-60	19	65	259	413	189	50	24	82393	2.970
60-70	3	92	165	437	207	82	17	82225	3.073
70-80	21	61	195	390	228	99	26	84062	3.188
80-90	7	65	182	396	192	140	25	87515	3.236
90-100		26	136	336	265	188	49	106647	3.600

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N	M
0-10	43	92	260	300	200	92	56	60329	3.108
10-20	16	103	278	354	180	57	28	55972	2.895
20-30	12	69	272	374	249	55	12	54025	2.954
30-40	17	54	249	392	224	77	4	47221	3.032
40-50	7	70	220	402	193	83	33	59512	3.099
50-60	4	59	219	418	218	60	26	50723	3.077
60-70	15	36	204	407	247	85	21	55545	3.204
70-80	9	58	113	429	228	151	21	59011	3.366
80-90	8	11	107	393	252	167	50	74688	3.567
90-100	7	18	66	370	301	188	57	62712	3.745

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N	M
0-10	12	140	249	383	124	79	25	37052	2.828
10-20	9	90	281	409	136	75	9	44433	2.852
20-30	4	83	341	400	117	50	10	56727	2.740
30-40	13	74	236	429	165	90	6	42642	2.978
40-50	3	97	197	443	164	83	16	57935	2.987
50-60	3	47	204	446	179	106	19	64945	3.150
60-70		68	196	389	213	112	21	61065	3.167
70-80		45	182	399	220	121	34	67603	3.292
80-90	3	46	132	381	259	147	35	75869	3.435
90-100	4	10	87	317	278	240	68	60971	3.857

206. Which one of the following comes closest to describing the work of your father (or the male head of your household)? Mark only one answer. If he works on more than one job, mark the one on which he spends most of his time. If he is now out of work, or if he's retired, mark the one that he did last.

A. Farm or ranch owner and/or manager
B. Farm or ranch foreman
C. Farm or ranch worker
D. Workman or laborer--such as factory or mine worker, fisherman, filling station attendant, longshoreman, etc.
E. Private household worker--such as servant, butler, etc.
F. Protective worker--such as a policeman, detective, sheriff, fireman
G. Service worker--such as barber, beautician, waiter, etc.
H. Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc.
I. Skilled worker or foreman--such as a baker, carpenter, electrician, enlisted man in the armed forces, mechanic, plumber, plasterer, tailor, foreman in a factory or mine (but not on a farm), etc.
J. Clerical worker--such as bank teller, bookkeeper, sales clerk, office clerk, mail carrier, messenger, etc.
K. Salesman--such as real estate or insurance salesman, factory representative, etc.
L. Manager--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
M. Official--such as manufacturer, officer in a large company, banker, government official or inspector, etc.
N. Proprietor or owner--such as owner of a small business, wholesaler, retailer, contractor, restaurant owner, etc.
O. Professional--such as actor, accountant, artist, clergyman, dentist, engineer, lawyer, librarian, scientist, etc.
P. Technical--such as draftsman, surveyor, medical or dental technician, etc.
Q. I don't know.

Grade 9 Boys

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	M
0-10	238	147	145	22	73	195	22	39	23	70	84	23	25	34	25	10	49	15	82727
10-20	84	244	117	28	22	182	12	13	22	53	143	10	20	32	16	41	21	24	75470
20-30	108	134	94	18	41	271		12	19	85	173	25	16	23	21	32	25	12	66602
30-40	61	121	74	21	48	237	3	19	3	84	196	33	42	43	3	34	23	17	72862
40-50	70	90	66	21	49	247		7	23	101	162	29	37	34	16	62	27	28	60278
50-60	60	100	89	4	38	239	4	14	13	64	185	28	43	58	6	69	29	17	59227
60-70	37	80	115	3	20	250		7	17	62	179	21	63	60	7	76	28	10	61009
70-80	26	43	97	6	20	175		12	3	62	224	39	66	82	16	91	54	11	73977
80-90	37	53	65		13	181	3	13	11	43	156	28	57	121	39	69	105	41	72398
90-100	30	37	101		11	77		7	8	71	151	42	80	91	30	119	122	53	80018

Grade 9 Girls

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	M
0-10	256	274	142	38	107	151	28	20	25	41	56	12	6	25	6	25	32	12	33268
10-20	117	264	105	35	99	271	15	4		52	65	14	4	20	12	15	21	4	47996
20-30	94	244	56	10	59	248		11	15	68	167	11	11	46	10	19	17	8	57103
30-40	64	221	94	6	35	240	6	6	14	81	150	19	13	19	11	47	27	12	69201
40-50	43	165	101	10	32	219		17	16	66	227	12	43	17	12	36	17	10	73321
50-60	35	127	63	3	25	257	2	12	10	74	182	30	60	47	15	64	16	12	81093
60-70	43	106	87	5	23	198		17	20	71	220	22	36	75	12	69	21	22	79077
70-80	41	68	71	12	25	220	1	9	12	86	201	23	44	77	27	63	38	21	82471
80-90	45	62	95	3	25	184		14	8	63	202	40	44	53	4	109	65	29	84263
90-100	28	48	71	2	6	140	2	15	7	52	161	29	60	89	26	114	128	50	103780

Grade 12 Boys

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	M
0-10	79	111	140	18	40	241	11	7	11	107	157	12	9	49	4	49	29	6	58313
10-20	40	110	120	11	23	256	11	7	7	87	144	8	42	25	25	72	29	20	54664
20-30	47	89	116	18	45	244		14	8	58	216	29	37	31	17	64	15		52198
30-40	33	68	159	21	13	227		9	9	85	201	25	21	27	17	80	13	25	46505
40-50	27	53	136	2	24	220		20	2	80	172	34	50	72	14	69	28	24	58364
50-60	32	62	103	7	24	176		26	13	79	235	23	58	61	3	84	35	13	49343
60-70	19	37	93	4	11	230		22	8	96	198	11	43	38	42	107	44	16	55341
70-80	20	41	80	12	7	148		6	11	67	187	33	70	66	38	114	88	31	58413
80-90	35	36	72	3	3	137		9	6	76	201	36	54	76	26	124	112	26	72767
90-100	33	23	68	5	3	95		10	9	99	115	35	74	122	26	107	151	59	61100

Grade 12 Girls

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	M
0-10	68	114	102	55	36	277	6	25	12	40	164	20	20	33	16	47	23	13	35122
10-20	51	146	102	5	42	254		10	10	51	218	15	9	46	3	54	20	14	42681
20-30	32	103	98	6	19	270		11	7	57	231	6	20	43	8	70	38	11	55186
30-40	29	76	69		19	324		6		50	242	25	31	96	3	48	8		42011
40-50	37	117	100	19	17	208	3	8		94	220	21	42	28	3	90	23	7	55849
50-60	46	55	83	7	36	216	3	28	12	77	221	24	36	54	9	98	31	12	62275
60-70	19	58	105		18	203		13	6	82	200	36	26	89	11	86	41	26	59930
70-80	33	23	138	6	21	158		5	15	63	206	21	51	62	18	106	84	21	65462
80-90	57	48	102	3	3	122		13	9	97	184	13	46	95	35	124	64	42	72137
90-100	40	42	56			89	6	10	8	80	159	35	38	113	33	103	156	72	58848

TABLE E-1 (continued)

208. Which one of the following comes closest to describing the work of your mother (or the female head of your household)? Mark only one answer. If she does housework in addition to outside work, consider only the outside work. If she works on more than one job, mark the most important one. If she usually works, but is now out of work, mark the one that she did last.

A. Housewife only; she has not worked for pay in the last three years.
B. Farm or ranch owner and/or manager
C. Farm or ranch worker
D. Worker or laborer--such as charwoman, laundry worker, etc.
E. Private household worker--such as housekeeper, maid, laundress, etc.
F. Protective worker--such as policeman, etc.
G. Service worker--such as beautician, waitress, etc.
H. Semi-skilled worker--such as factory machine operator, cab driver, etc.
I. Skilled worker or foreman--such as baker, inspector, etc.
J. Clerical worker--such as bookkeeper, secretary, typist, sales clerk, store clerk, etc.
K. Sales--such as real estate, life insurance, etc.
L. Manager--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
M. Official--such as manufacturer, officer in a large company, banker, government official or inspector, etc.
N. Proprietor or owner--such as owner of a small business, wholesaler, retailer, restaurant owner, etc.
O. Professional--such as actress, accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, etc.
P. Technical--such as draftsman, medical or dental technician, etc.
Q. I don't know.

Grade 9 Boys

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	N
0-10	289	93	385	31	33	36	79	35	52	28	28	27	18	19	18	23	71	23	79474
10-20	128	125	539	11	5	49	40	17	35	20	19	20	18	31	11	19	35	3	72515
20-30	103	99	541	19	9	[illegible]	53	18	29	34	16	41	3	10	16	7	40	16	66916
30-40	89	88	569	8	9	42	24	3	16	67	29	62	8	12	9	14	35	6	70953
40-50	105	94	506	7	12	44	31	6	55	64	21	80	4	3	14	23	27	9	58360
50-60	51	61	549	6	13	44	16	6	48	45	13	89	16	16	10	12	53	3	59744
60-70	65	58	554	4	3	59	17	6	19	64	6	121	10	21		21	30	7	59412
70-80	32	45	569	7	5	50	31		44	35	10	101	8	19	9	7	60		73551
80-90	24	59	557	5		39	3	2	38	46	11	146	12	12		8	60	3	73334
90-100	14	27	556	9	5	19	8		42	34	8	160	26	5	4	17	72	6	81311

Grade 9 Girls

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	N
0-10	249	149	482	32	25	49	80	6	12	41		10	6	16	18	13	43	19	33460
10-20	128	144	614	11	13	31	60		17	29		20		5	12	9	25	9	47544
20-30	73	156	522	6	14	16	56		31	82	7	46	4	23		11	17	11	58205
30-40	57	114	611	3	6	29	27	8	38	31	9	57	3	12	18	8	21	5	69671
40-50	62	100	594	3	8	27	44		52	63		57	12	11	6	14	6	3	72007
50-60	39	84	545	3	8	49	42		39	75	6	70	10	17	11	11	28		80762
60-70	17	94	495	5	9	45	31	3	54	70	11	89	20	12	10	5	38	6	81027
70-80	47	39	560		3	42	20	5	65	53	11	115	15	11	14	9	34	5	81976
80-90	26	48	572		6	33	29		60	28	7	117	14	7	7	9	59	2	85820
90-100	11	28	562	4	2	18	10	3	43	34	9	148	8	20	3	22	81	5	105479

Grade 12 Boys

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	N
0-10	118	54	623	7	23	33	81		22	45	15	23	10	11	7	4	35	7	56264
10-20	39	75	598	4	8	52	49	12	37	29	24	49		16	12	11	23		54712
20-30	32	62	552	8	7	59	35	8	42	64	13	103		17	6	7	8	8	52984
30-40	36	37	543		4	57	42	12	27	64	26	72	33	12		20	39	12	46368
40-50	14	57	580	3	6	28	13	4	57	60	16	115	13	4		7	36	3	59065
50-60	4	79	518	11		53	28		63	78	12	81	10	7	4	19	39		50737
60-70	18	50	479		4	54	51		39	57	22	114	11	26		24	61	7	55370
70-80	18	39	513			34	21		54	82	12	147	21	13	3	15	43	4	58530
80-90	31	24	499	7		47	22		39	63	7	149	11	18	12	27	69	6	73017
90-100	9	18	514		4	39	10	4	16	59	19	208	12	11	5	17	60	3	62546

Grade 12 Girls

%-ile	X	Q	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	N
0-10	71	69	537	6	11	67	66		22	79	11	35	23	16	11	6	12	28	35016
10-20	36	61	573		5	50	27	5	37	45	21	91	10	14	5	17	40		43290
20-30	23	61	527	10		58	44		43	103	11	63	7	15		23	36		55647
30-40	37	57	628			6	24	5	40	66	17	66	15	15	8	14	36	3	41680
40-50	33	33	499	4	4	39	46	4	41	135	39	99	12	5		13	28		56102
50-60	28	40	539	6	4	25	25	3	57	78	26	120	15	10		3	43	5	63340
60-70	21	39	518		3	29	31		48	67	14	142	6	14		23	60	6	59811
70-80	18	26	521			39	16		49	63	8	138	12	18	19	24	66		66379
80-90	9	37	501	2		19	28	2	45	55	18	181	12	7	8	10	73		75631
90-100	16	10	477		6	35	22	4	28	53	18	162	20	10	4	16	132	5	60256

TABLE E-1 (continued)

following programs do you expect to specialize in college? Mark one of these even if you have not definitely made up your mind.

A. I do not expect to attend college.
B. Biological sciences (botany, physiology, zoology)
C. Physical sciences (chemistry, geology, physics, astronomy)
D. Engineering
E. Mathematics
F. Pre-medical
G. Pre-dental
H. Pre-law
I. Business administration
J. Education
K. Sociology or psychology
L. Political science or economics
M. Foreign languages
N. Other liberal arts (philosophy, literature, history, etc.)
O. Fine arts (music, art, ballet, etc.)
P. Agriculture
Q. Nursing
R. Home economics
S. Pre-theology
T. Journalism
U. A program not listed above.
V. I have no plans regarding college programs.

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	N
14	55	108	64	33	13	33	33	20	11	21	14		30	26	14	12	6	14	36	93	74306
21	41	106	25	15	12	15	34	20	3	12	7	6	12	47	11	3		[illegible]	41	127	68452
12	26	147	36	33	14	21	21	16		3	6		5	29	10		10	3	63	112	64733
11	43	154	47	14	24	24	25	12	3		6	3	14	56	8				75	95	70647
12	32	166	42	30	13	14	14	7	[illegible]	4	3		23	39				4	93	143	58809
23	52	210	39	24	9	37	19	22			4	3	15	55	4	3	3	3	97	111	58579
24	41	206	42	53	17	44	31	17	3	9	3	3	20	58			7		103	110	59533
22	100	235	57	39	26	36	21	34	8	3	5		25	39		3	10	2	71	126	73593
30	99	236	68	50	24	50	43	24	5		3	9	16	27			3	8	94	120	73509
38	159	249	63	69	12	50	21	22	12		15	6	16	23			3	25	74	100	81998

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	N
22	22	14	29	21	19	7	41	15		14	59	7	21	7	126	28		13	55	91	28925
13	7		29	14	4	24	52	52	5		25	4	22	4	214	30		4	71	63	46115
13	14		11	19		8	79	36	6		25	8	11		105	23	4	6	118	115	54422
	16	9	22	6	3	9	64	24	2		23	3	24		127	29			103	118	69470
14	11		14	14		3	114	37	6		5		36		91	32		3	108	95	73868
9	14	1	18	19	3	11	89	38	12		8	10	40	4	119	25		8	118	111	80579
7	5	4	18	33	6	18	112	89	3		12	12	49		87	30	3	10	82	113	81226
10	13	3	30	26	2	9	102	131	32		20	9	28	1	98	18		14	77	106	84157
5	34	2	43	45	10	13	86	134	19	1	12	16	46	12	97	20	5	8	93	126	85574
25	37	7	58	36	3	13	58	178	35	7	41	28	61	2	85	38	2	23	63	114	105460

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	N
8	17	103	7	19	8	22	46	36	7	2	4	3	11	23					87	63	55903
12	22	74	19		8	8	112	20	4	4		2	30	22	10				74	142	53674
	12	76	16	38	4	20	102	34	4	4	8	2	10	26	4			4	48	108	52500
13	9	75	16	28	13	22	115	35	21		12	4	9	26		9	7		88	78	47427
34	17	118	23	16	8	22	96	36	7	11		7	27	53				7	65	75	58948
20	17	135	4	53	29	25	108	60	12	4	4	8	17	44				4	103	56	50339
30	48	161	30	29	15	25	116	57	7	4		11	37	26			4	4	84	66	55970
7	64	219	36	44	23	30	143	56	11	2	5	49	26	25			4		59	65	59121
26	61	271	41	54	27	52	119	51	19	9	3	27	28	14			17	8	72	41	74066
24	149	317	80	85	14	58	51	27	16	21	3	29	17	12			14	17	28	26	62816

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	N
29	3			21	6	6	113	54		6	17		18		102	12			74	79	35638
			3	5	5		107	69	31		5	3	26	5	80	30	5		36	89	43683
	4			10	12	13	145	69	15			10	15		42	14			92	82	56176
15				11	5	3	133	63	13	3	5	5	30		56	10			78	52	42751
	3		11	4	6	10	101	58	17		9	11	32	6	86	38			56	61	57174
6			3	13	18		168	64	27		13	8	24	3	71	23		17	61	74	64282
11	7		11	12		14	179	121	20	6	18	21	41		86	21		6	52	45	60328
8	5		13	11	3	2	110	173	37	2	16	16	21	3	97	21		10	70	57	66955
23	9		16	27	3	2	77	203	45	5	26	47	41		95	16		8	72	48	75482
40	22	7	67	19		3	39	232	57	13	44	70	45		114	28	3	21	42	35	60872

211. In the following list of occupations, mark the one occupation you expect to make your career after you have completed your education. If your choice is not on the list, mark the one that is closest to it. Mark one of these even if you have not definitely made up your mind.

A. Accountant
B. Biological scientist (biologist, botanist, physiologist, zoologist, etc.)
C. College professor
D. Dentist
E. Engineer (aeronautical, civil, chemical, mechanical, etc.)
F. Elementary school teacher
G. High school teacher
H. Lawyer
I. Mathematician
J. Pharmacist
K. Clergyman (minister, priest, rabbi, etc.)
L. Physical scientist (chemist, geologist, physicist, astronomer, etc.)
M. Physician
N. Political scientist or economist
O. Social worker
P. Sociologist or psychologist
Q. Armed forces officer
R. Artist or entertainer
S. Businessman
T. Craftsman
U. Engineering or scientific aide
V. Forester
W. Medical or dental technician
X. Nurse
Y. Pilot, airplane
Z. Policeman or fireman
AA. Secretary, office
BB. Writer
CC. Barber or beautician
DD. Enlisted man in the armed forces
EE. Farmer
FF. Housewife
GG. Salesman or saleswoman
HH. Skilled worker (electrician, machinist, plumber, printer, etc.)
II. Structural worker (bricklayer, carpenter, painter, paperhanger, etc.)
JJ. Some other occupation different from any above

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	L
0-10	502	53	21	36	35	122	22	38	36	24	21	2	38
10-20	231	28	22	3	16	119	10	31	26	20	26	6	15
20-30	173	27	27	13	15	168	16	15	20	16	10	10	12
30-40	97	32	22	5	22	189	8	6	23	17	16	3	31
40-50	129	31	23		19	174		21	28	7	15	15	24
50-60	49	13	21		20	221	6	19	44	12	2	3	34
60-70	61	11	17		21	221	3	30	43	23	18	14	26
70-80	31	14	19		31	207	17	23	42	27	2	14	79
80-90	24	37	16	5	24	267	3	42	61	21	14	14	66
90-100	11	18	27		13	274	7	41	51	27	16	16	134

Grade 9 Girls

X	A	B	C	D	E	F	G	H	I	J	K	L
446	20	14	39	22	37	32	21	7	37	36	7	4
198	23	18	5		4	64	18	30	18	9	5	4
190	16	2	4	4	4	44	20	8	4	8	2	
78	17	13		9		44	43	9	12	3	6	
44	25	10		3	3	56	41	3	9	3	3	3
48	7	8	3	2		50	59	12	9			3
29	17	2			7	94	55	13	7	5		
18	12	15	7	2		135	53	2	20	8	4	2
24	10	13		6	2	158	43	12	24	2		25
18	6	23	3		7	148	108	15	16	2	8	31

Grade 9 Boys

%-ile	M	N	O	P	Q	R	S	T	U	V	W	X	Y
0-10	12	3	14		64	28	16		9	6	8		42
10-20	20	6	28	3	78	21	41	19	13	22	5	2	62
20-30	17		19		120	19	15	16	10	24	15	7	43
30-40	12		3	6	56	24	31	6	7	35	6		44
40-50	26		13		43	34	32	20	10	48		3	68
50-60	22		2		61	14	29	20	12	42	11	7	27
60-70	34		10	6	57	18	36	19	7	26	15	7	49
70-80	32		8	8	55	25	27	9	10	14	10		48
80-90	48		3	5	46	12	36	8	2	27	12	3	36
90-100	47			10	31	11	20	8	18	22	7		24

Grade 9 Girls

M	N	O	P	Q	R	S	T	U	V	W	X	Y
26	7	17		48	19			7			172	7
4		5		18	28					13	212	19
5		14		26	14	8					139	12
5		14		20	23	3				3	159	12
14	3	17	3	6	33	6				6	116	14
8		8	5	9	33					7	138	
19		9		10	38				2	11	111	7
14		18	13	18	21	4				5	111	2
27		29	7	4	25	4		2		5	124	2
22		30	16	3	45	5		2		4	111	1

Grade 9 Boys

%-ile	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	N
0-10	59	8	11	14	24	74	12	6	19	29	89	68227
10-20	15	3	6	14	31	86	10	3	39	29	123	66473
20-30	21	17		12	38	107	10		24	9	110	62922
30-40	6	9		9	22	107	3	6	40	21	173	70456
40-50	14	4			14	58		4	32	18	202	57092
50-60	25			17	10	92		9	43	7	152	59859
60-70	16	3			16	88	3	3	32	21	107	59619
70-80	20			6	11	65		26	24	8	118	73607
80-90	8	3	9		10	39	6	5	18	3	92	73344
90-100	3		19		5	28		2	13	4	94	81591

Grade 9 Girls

Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	N
14	108	8	87	14	15	113	7	6		48	28909
	170		90		4	124	5	9	4	94	44765
6	246		65	4	16	192	8			133	52954
8	262		48		6	170	10		2	101	68303
	320	16	57	6	6	118	6			97	73242
4	310	5	71			136	5		4	103	80075
	270	5	52	14	5	110	2		2	132	80094
	302	10	36	5		93	5	3		83	84312
	260	3	16			74				121	86041
	175	24	6			68			1	119	104803

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	L
0-10	173	25	15	15	14	125	16	24	41	8	16	18	11
10-20	58	45	8	3	12	84	8	34	22	10	4	7	8
20-30	39	42		4		116	4	61	35	12	18		4
30-40	42	65	9		13	108	11	50	9	9	8	16	5
40-50	21	43	16		11	117	4	60	30	16		7	9
50-60	25	45	11	7	35	138	16	75	29		17	9	15
60-70	27	62	26		18	180	8	59	29	19	8	11	19
70-80	7	65	3	4	29	205	3	74	35	22	7	11	39
80-90	17	52	10	7	31	267	9	86	55	14	8	32	41
90-100	3	29	20	11	14	328		79	53	52	15	23	103

Grade 12 Girls

X	A	B	C	D	E	F	G	H	I	J	K	L
86	44	6	6	17	6	102	13	6	6	23	5	
36	39					76	46			5		
27	28		4	13		66	30	4		9		4
15	22	5		5		69	17			10		
23	31					48	33	8	11		4	4
9	19			2		54	41			13	3	
6	31					81	75	10	4		2	3
3	8	3	6	3		125	78	2		3		
2	15	3	2			166	108	2	8	13	8	
	17	23	7		4	121	207	3	34		3	33

Grade 12 Boys

%-ile	M	N	O	P	Q	R	S	T	U	V	W	X	Y
0-10	12		20	4	41	13	49	14	8	30			23
10-20			15	4	57	20	102	27		25		4	26
20-30	8		23	12	57	17	80	8	4	20	12		22
30-40	4	3	8	5	56	12	76	36	8	32	5		19
40-50	14	7	15	7	69	7	48	10	6	30	3		14
50-6	43		5	8	34	17	77	4	23	39	4		
60-70	19	4	8		37	34	72	11	3	24	12		25
70-80	37	2	7	8	40	20	77	9	9	12	7		35
80-90	47	6		20	14	27	78	7	6	25	4	3	3
90-100	74	9		12	13	7	36		3	7	4		5

Grade 12 Girls

M	N	O	P	Q	R	S	T	U	V	W	X	Y
6		29	6	12	13		5		3	6	128	28
		45	5	7	14					12	87	
2		15	3	6	15				4	16	62	10
3	3	13	5	10	5	10				18	69	5
6		32	6	3	17	14				23	91	11
10		37	3	3	11	2	3			34	91	5
3		35	13		18				3	28	101	
8		29	14		12	6				20	116	4
13	3	23	20		29	3				55	103	2
13	10	15	35		33			2	3	12	128	

Grade 12 Boys

%-ile	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	N
0-10	55	7		25	16	54		11	92	14	184	53637
10-20	11			11	14	57		15	137	50	179	53747
20-30	6	8	4	20	34	53		7	112	26	171	52623
30-40	39	7		9	43	62		11	98	21	140	46103
40-50	7	7		11	35	70		14	120	29	164	58657
50-60				8	41	67		13	87	12	123	49705
60-70	11	4	4	4	17	38		14	85	24	112	54906
70-80	4			7	8	22	3	15	46	14	124	59141
80-90	6	6	7	3	11	5		4	32	3	74	74023
90-100	2	3	23		3	14		3	11		40	62946

Grade 12 Girls

Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	N
	239		79			96	6			110	34528
5	313	4	93		3	179	18			48	43297
4	379		61		3	156	10		4	93	55445
3	383		112			130				104	42583
6	371	3	79	4		124	4	4		67	56650
	410	8	44			112	6			88	64547
3	387	6	41			64	3			85	60685
	340	7	23		6	102	3			83	67397
	188	7	14			98	4			112	76151
	98	14				72				111	61202

218. Mark the one answer indicating the highest level of education your father reached. Mark the one best answer even if you are not sure.

A. None, or some grade school
B. Completed grade school
C. Some high school, but did not graduate
D. Graduated from high school
E. Vocational or business school after high school
F. Some junior or regular college, but did not graduate
G. Graduated from a regular 4-year college
H. Master's degree
I. Some work toward doctorate or professional degree
J. Completed doctorate or professional degree
K. I don't know

Grade 9 Boys

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	311	216	94	139	188	140	42	64	70	28	6	14	78154
10-20	173	221	117	181	235	115	18	41	37	15		19	69772
20-30	133	202	115	181	185	207	26	29	29	16		9	65124
30-40	104	173	87	162	205	214	18	50	49	22	3	17	69988
40-50	127	132	86	159	225	228	45	39	50	11	6	18	57239
50-60	6[illegible]	119	64	186	222	232	42	52	41	24	6	13	56847
60-70	74	124	84	137	180	241	50	69	79	10	6	20	58911
70-80	39	87	68	149	187	236	34	73	87	35	11	33	73027
80-90	29	88	34	121	118	319	54	69	114	29	14	44	72951
90-100	23	84	20	81	111	254	81	107	146	35	13	68	80603

Grade 9 Girls

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	383	276	198	76	160	117	22	21	37	7		85	30220
10-20	108	254	140	185	220	64	24	26	40	9		37	48397
20-30	166	217	130	193	253	170	12	4	11	3		57	53975
30-40	103	241	124	173	226	162	12	8	20	9	3	22	66740
40-50	70	234	102	156	199	198	21	27	30	3		39	71478
50-60	50	165	111	149	248	217	25	23	30	13	5	15	79960
60-70	53	150	101	160	177	243	44	29	45	10	7	33	78293
70-80	53	115	58	144	170	281	50	54	60	14	10	43	81507
80-90	34	100	49	131	179	235	57	75	100	14	10	50	85184
90-100	30	91	32	112	127	273	59	84	127	24	8	64	103530

Grade 12 Boys

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	132	122	156	207	207	174	45	27	21		7	34	55549
10-20	45	116	132	254	220	176	15	25	39	8	4	12	54417
20-30	45	109	114	244	168	221	39	52	53				52345
30-40	53	114	70	196	271	221	42	45	20	9	14		45624
40-50	31	67	81	208	245	245	35	54	36		4	26	58123
50-60	10	68	119	192	183	231	71	61	33	6	13	21	50421
60-70	26	71	99	190	191	273	45	39	45	19		29	54930
70-80	32	40	66	158	186	257	77	76	60	23	11	45	57728
80-90	43	48	61	139	166	272	63	76	107	17	16	35	72180
90-100	30	13	50	82	149	233	53	140	154	37	17	70	61292

Grade 12 Girls

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	55	110	141	270	237	138	24	16	18			43	35528
10-20	46	138	168	266	190	109	29	38	19	10	12	20	42855
20-30	40	148	132	262	211	119	31	47	11	7		30	54734
30-40	23	114	121	253	257	136	47	22	26	10		15	42243
40-50	31	101	142	205	198	191	45	43	36	10	6	23	56183
50-60	41	83	89	233	182	202	79	56	37	6	16	19	62564
60-70	24	88	7[illegible]	154	258	175	50	102	47	19	7	20	59609
70-80	10	64	[illegible]	188	167	234	78	56	56	28	12	29	66947
80-90	44	40	51	181	199	222	90	55	90	19	13	41	75079
90-100	18	14	61	111	171	195	73	113	129	28	27	79	60096

219. Mark the one answer indicating the highest level of education your mother reached. Mark the one best answer even if you are not sure.

A. None, or some grade school
B. Completed grade school
C. Some high school, but did not graduate
D. Graduated from high school
E. Vocational or business school after high school
F. Some junior or regular college, but did not graduate
G. Graduated from a regular 4-year college
H. Master's degree
I. Some work toward doctorate or professional degree
J. Completed doctorate or professional degree
K. I don't know

Grade 9 Boys

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	468	237	81	132	138	174	68	47	53	22	30	16	69803
10-20	283	198	99	126	203	242	19	33	50	4	10	16	63793
20-30	201	201	44	172	212	273	16	17	24	20	2	19	61454
30-40	184	153	44	129	243	322	19	30	32	14	2	11	65263
40-50	250	135	35	130	188	345	45	25	64	26		6	51587
50-60	144	112	38	165	218	317	30	53	37	11		19	54867
60-70	157	121	19	98	175	400	37	41	77	3	11	18	54680
70-80	132	73	43	90	150	404	54	46	85	27	10	18	67026
80-90	109	67	13	82	150	394	68	47	138	16	14	12	67698
90-100	56	51	10	68	72	396	89	97	170	23	14	9	78105

Grade 9 Girls

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	424	197	174	134	266	79	15	28	39		8	61	29346
10-20	170	204	115	201	246	126	31	9	31	3	5	31	45830
20-30	294	165	89	230	286	131	13	13	14	4	7	44	48280
30-40	175	197	72	147	261	222	37	22	22	2		19	62694
40-50	109	198	57	149	306	213	25	9	20			24	68963
50-60	139	120	77	139	304	261	30	35	16	6	2	10	73712
60-70	110	97	41	132	241	343	56	26	46	4	3	11	74236
70-80	143	79	57	119	226	350	53	41	39	8	10	18	75094
80-90	111	46	16	105	232	328	73	64	86	21	10	19	79299
90-100	124	44	16	50	122	366	127	75	145	34	7	13	94889

Grade 12 Boys

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	177	122	83	180	219	272	51	27	19		4	23	53438
10-20	82	100	60	208	257	259	28	29	43	4	4	8	52522
20-30	95	93	64	186	216	312	39	24	41	13	9	4	49940
30-40	82	115	41	172	221	332	54	31	17	17			44390
40-50	61	70	53	160	216	297	67	58	54	7		18	56485
50-60	65	39	42	145	206	405	31	44	50	25	4	9	47816
60-70	74	27	58	116	243	344	56	61	63	10	4	17	52501
70-80	85	27	30	122	178	416	50	80	80	6	7	4	54888
80-90	62	27	20	95	179	404	77	63	102	12	7	15	70883
90-100	60	20	30	81	105	371	95	131	138	12	7	12	59544

Grade 12 Girls

%-ile	X	K	A	B	C	D	E	F	G	H	I	J	N
0-10	113	86	135	210	332	194	21		16			6	33700
10-20	91	84	77	230	271	244	40	20	28			8	41103
20-30	65	79	85	243	238	234	53	25	18	4	4	15	53464
30-40	102	103	76	204	262	256	37	25	15	10		13	39206
40-50	76	51	69	194	315	257	49	31	19			14	53857
50-60	106	51	37	157	277	319	56	44	37	13	7	3	58878
60-70	55	54	30	152	222	340	56	96	19	11	14	6	57872
70-80	73	34	52	126	231	323	74	53	58	20		31	63009
80-90	75	14	25	131	246	264	141	92	68	9	6	5	70963
90-100	38	15	28	95	141	275	123	127	157	20	7	11	58976

221. What is the total number of living children in your family? Include yourself, together with all full brothers and sisters, half-brothers and sisters, stepbrothers and sisters, and foster brothers and sisters. Include those not now living in your home.

A. One
B. Two
C. Three
D. Four
E. Five
F. Six
G. Seven
H. Eight
I. Nine
J. Ten
K. Eleven
L. Twelve or more

Grade 9 Boys

%-ile	X	A	B	C	D	E
0-10	318	76	115	109	140	108
10-20	147	68	121	177	157	139
20-30	119	71	187	163	160	130
30-40	89	102	166	173	187	132
40-50	142	90	192	219	129	120
50-60	45	83	222	227	165	83
60-70	58	88	204	247	184	106
70-80	31	84	229	238	191	116
80-90	20	111	265	223	174	100
90-100	16	60	305	281	139	106

Grade 9 Girls

%-ile	X	A	B	C	D	E
0-10	339	134	78	102	124	76
10-20	128	39	76	145	125	140
20-30	135	68	132	189	120	118
30-40	78	57	153	147	192	131
40-50	31	72	152	208	125	143
50-60	45	54	208	190	179	120
60-70	25	62	209	243	185	114
70-80	15	63	231	262	184	124
80-90	22	70	244	254	178	88
90-100	4	84	280	243	165	105

Grade 12 Boys

%-ile	X	A	B	C	D	E
0-10	97	103	163	133	169	129
10-20	39	90	149	213	145	106
20-30	47	115	192	206	212	124
30-40	11	80	242	255	138	65
40-50	11	96	267	210	138	105
50-60	7	68	216	237	184	110
60-70	15	92	260	299	167	69
70-80	23	127	270	246	142	84
80-90	15	108	322	243	147	63
90-100	12	108	327	230	208	47

Grade 12 Girls

%-ile	X	A	B	C	D	E
0-10	48	69	191	130	141	141
10-20	37	111	206	167	123	134
20-30	11	85	156	231	161	118
30-40	27	55	220	230	187	95
40-50	18	86	207	239	183	97
50-60	23	68	227	230	171	117
60-70	9	88	269	204	115	96
70-80	16	110	270	273	137	73
80-90	2	137	273	224	161	109
90-100	3	94	308	240	146	99

Grade 9 Boys

%-ile	F	G	H	I	J	K
0-10	118	52	63	35	34	42
10-20	80	89	61	43	19	9
20-30	76	66	54	36	27	3
30-40	69	50	39	41	5	12
40-50	76	77	[illegible]	18	30	16
50-60	67	52	27	21	23	11
60-70	48	51	30	10	18	
70-80	68	21	18	13	3	7
80-90	59	30	23	7		6
90-100	50	27	8	9	3	5

Grade 9 Girls

%-ile	F	G	H	I	J	K
0-10	113	78	65	59	40	35
10-20	133	55	92	38	56	29
20-30	93	81	73	40	26	30
30-40	108	56	45	34	38	25
40-50	70	66	46	37	21	26
50-60	98	47	51	5	23	9
60-70	67	33	29	8	12	10
70-80	26	49	20	14	7	3
80-90	61	39	36	10	7	5
90-100	63	25	19	4	6	4

Grade 12 Boys

%-ile	F	G	H	I	J	K
0-10	87	82	55	24	30	18
10-20	85	64	42	41	18	15
20-30	39	40	29	8	12	4
30-40	73	54	31	37	4	4
40-50	61	38	57	10	4	7
50-60	99	38		19	11	4
60-70	34	23	15	28	7	
70-80	69	24	25	9	4	
80-90	64	33	6	7	3	
90-100	28	29	13	3	3	

Grade 12 Girls

%-ile	F	G	H	I	J	K
0-10	55	59	77	30	41	11
10-20	44	47	49	14	29	31
20-30	58	68	34	31	22	21
30-40	55	34	43	25	30	10
40-50	65	35	33	14	20	7
50-60	59	34	50	6	12	3
60-70	73	21	31	20	23	9
70-80	45	31	24	22	10	3
80-90	38	14	14	14	3	8
90-100	53	16	20	14	7	3

Grade 9 Boys

%-ile	L	N	M
0-10	67	77727	5.518
10-20	37	71355	4.872
20-30	26	65954	4.518
30-40	24	70978	4.271
40-50	30	56442	4.265
50-60	19	60078	4.033
60-70	14	59782	3.834
70-80	13	73607	3.673
80-90	3	73564	3.408
90-100	3	81166	3.397

Grade 9 Girls

L	N	M
97	31219	5.694
73	47543	5.832
30	55040	4.993
13	68333	4.748
34	74220	4.702
13	80298	4.233
28	80448	4.022
18	84532	3.767
8	86192	3.710
4	106197	3.435

Grade 12 Boys

%-ile	L	N	M
0-10	7	57353	4.486
10-20	31	54713	4.519
20-30	19	52200	3.795
30-40	17	47518	3.895
40-50	7	59286	3.717
50-60	13	50551	3.847
60-70	6	55528	3.401
70-80		58232	3.294
80-90	3	74183	3.177
90-100	3	62410	3.089

Grade 12 Girls

L	N	M
56	35770	4.937
44	43245	4.463
15	56306	4.336
15	42095	4.141
15	56931	3.910
23	63695	3.964
20	60528	3.884
2	66532	3.414
5	76095	3.290
	60996	3.329

232. What do you expect to do about military service?

A. Never serve because I am a girl
B. Quit high school and enlist
C. Enlist right after high school
D. Work for a commission through a college ROTC program, military school, or one of the service academies
E. Enlist after I have completed some college training
F. Enlist after I have graduated from college
G. Enlist after I have worked for several years
H. Enlist in the Reserves or National Guard
I. Wait until I am drafted
J. Never serve because I do not think I can pass the physical examination
K. Never serve for other reasons
L. I have no idea what I will do about military service.

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	L	N
0-10	461	47	86	210	73	81	82	70	30	64	39	25	194	70130
10-20	225	21	50	308	71	61	43	49	22	84	19	6	265	66800
20-30	151	15	63	355	64	55	78	33	31	70	12	13	211	64110
30-40	175	9	33	418	74	78	62	32	28	61	17	14	171	65793
40-50	161		39	333	91	62	71	26	29	57	16	30	247	55529
50-60	99		22	293	112	112	87	31	18	51	20	7	248	57100
60-70	96	3	12	252	98	93	104	19	14	67	15	16	308	57732
70-80	64	2	6	244	100	59	146	12	27	90	13	21	282	71306
80-90	62	10	3	137	157	45	223	11	21	86	19	3	386	70664
90-100	39		5	100	163	47	201	8	31	109	16	21	299	79381

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	L	N
0-10	145	4	11	258	78	45	26	77	31	96	37	41	296	54927
10-20	42	3		209	48	81	60	85	48	204	47	13	201	54528
20-30	49	8	4	257	79	75	55	90	28	176	35	19	174	52131
30-40	46	3		210	123	58	78	73	38	145	49	3	220	45947
40-50	33	7	7	196	136	35	61	64	73	167	3	30	191	58004
50-60	52	4	7	164	152	62	94	33	4	158	37	43	185	48386
60-70	37		6	136	184	37	130	37	29	150	23	15	252	54334
70-80	56			107	228	32	108	61	35	106	41	41	274	56385
80-90	35			78	276	42	144	19	43	111	32	34	223	72735
90-100	46			23	286	14	148	4	41	149	39	39	256	60355

235. In which branch of the service do you expect to serve?

A. I do not expect to serve, for physical reasons.
B. I do not expect to serve, for reasons other than physical.
C. Army
D. Air Force
E. Navy
F. Marine Corps
G. Coast Guard
H. Army Reserves or National Guard
I. Air Force Reserves or National Guard
J. Navy Reserves
K. Marine Corps Reserves
L. Coast Guard Reserves

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	L	N
0-10	472	80	71	171	166	128	128	75	72	33	30	33	13	69612
10-20	306	46	38	234	190	189	132	33	45	31	13	17	33	62661
20-30	186	40	64	231	184	223	149	35	23	15	3	20	13	62238
30-40	197	25	64	221	259	205	137	29	19	3	12	19	6	64553
40-50	188	30	100	230	231	175	116	42	39	10		7	20	54271
50-60	125	2	42	240	231	215	120	44	19	7	16	20	20	55807
60-70	123	4	44	210	269	204	163	14	21	13	4		11	56323
70-80	84	29	36	208	254	224	128	37	7	8	9		10	69971
80-90	58	21	72	246	269	209	93	22	29	13	3	21	2	70970
90-100	50	24	50	275	280	190	106	18	31	9		10	7	78516

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	L	N
0-10	144	66	68	286	248	137	79	47	23	11	12	11	11	54974
10-20	64	69	44	275	231	186	102	10	34	8	11	8	23	53426
20-30	59	39	31	298	252	204	102	26	12	2	19	12	4	51623
30-40	62	37	21	272	260	228	96	28	9	12	18	14	4	45240
40-50	38	55	59	232	272	215	84	7	34	15	10	10	7	57752
50-60	82	38	63	211	274	228	99	29	24	9	13	9	4	47063
60-70	41	52	37	309	325	174	60	8	11	15	4	4		54151
70-80	54	41	50	256	296	217	83	19	18	9		3	8	56493
80-90	54	48	47	279	240	223	73	25	37	9	15	5		71440
90-100	57	31	75	341	214	225	47	17	30	17	4			59711

237. Which one of the following best describes the college you expect to attend?

A. I do not expect to go to college
B. A teachers' college
C. An agricultural college
D. An engineering college
E. A liberal arts college
F. A college specializing in music or fine arts
G. A university which includes many of the above colleges
H. Some other type of college
I. I have no plans regarding the type of college I will attend.

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	N
0-10	500	301	75	80	117	67	47	97	85	132	68316
10-20	296	441	44	76	107	60	48	37	39	149	63112
20-30	163	429	30	56	123	47	26	71	86	132	63476
30-40	220	418	20	56	112	51	27	68	101	147	63337
40-50	216	383	24	76	152	31	34	54	110	137	53038
50-60	117	274	26	94	180	29	15	102	130	149	56203
60-70	105	223	16	85	232	23	17	102	136	166	57247
70-80	79	173	28	49	232	30	37	142	152	157	70328
80-90	57	114	31	39	224	17	26	232	145	172	71013
90-100	56	44	29	31	245	66	7	297	158	122	78073

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	N
0-10	135	535	41	32	115	42	42	26	69	98	55403
10-20	65	497	38	23	92	28	23	64	104	130	53373
20-30	52	524	62	28	70	41	29	43	73	130	51956
30-40	54	491	49	32	67	78	24	100	95	63	45590
40-50	37	422	42	63	72	93	14	99	117	78	57762
50-60	75	329	90	44	124	112	13	117	106	65	47362
60-70	11	275	50	40	137	116	34	163	97	88	55739
70-80	17	158	65	22	161	203	14	247	91	40	58595
80-90	51	80	55	29	198	157	11	297	106	67	71645
90-100	38	25	34	22	234	225	2	399	55	4	66801

Grade 9 Girls

X	A	B	C	D	E	F	G	H	I	N
564	432	94	7	55	35	35	51	116	175	26714
249	525	100	10	14	33	33	24	118	144	42928
181	558	65	8	4	7	6	41	131	180	52897
112	515	60	6	3	10	18	66	116	205	66231
78	507	61	10	3	21	18	57	181	142	70950
72	386	73	4	3	16	27	79	220	187	78289
62	336	125	3	10	31	27	88	174	206	77604
27	318	135		3	17	17	162	164	184	83556
39	223	140	12	4	58	26	180	187	171	84824
28	111	157		10	127	33	255	154	153	103766

Grade 12 Girls

X	A	B	C	D	E	F	G	H	I	N
92	605	116	5	10	28	9	29	105	93	34336
46	604	138	5	10	42	10	30	88	73	42864
31	539	99	11	3	45	15	33	205	50	55245
43	596	62			60	3	52	161	67	41421
16	568	50		7	58	19	64	163	70	57037
20	561	65	2		86	17	103	185	80	63826
15	388	103	4	2	98	13	135	212	45	60166
11	309	122	3	5	127	9	147	163	35	66887
29	266	139	8	3	173	15	251	123	25	74148
28	118	95	8	25	271	23	364	67	29	55556

239. If all your plans work out as they should, how much money per year would you expect to be earning twenty years after you graduate from high school?

A. $2,500 or less
B. $2,500 to $5,000
C. $5,000 to $7,500
D. $7,500 to $10,000
E. $10,000 to $12,500
F. $12,500 to $15,000
G. $15,000 to $17,500
H. $17,500 to $20,000
I. $20,000 to $22,500
J. $22,500 to $25,000
K. $25,000 or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	N
0-10	522	127	101	95	106	71	117	55	73	62	35	157	67321
10-20	426	101	121	124	146	94	92	43	46	35	28	169	57384
20-30	330	86	128	153	102	94	103	105	49	55	14	113	55470
30-40	303	59	83	160	174	145	103	70	35	50	21	100	59309
40-50	330	57	83	163	145	112	110	71	41	41	27	149	48499
50-60	210	45	68	156	183	121	106	57	37	64	15	129	51880
60-70	192	34	71	128	153	138	85	79	55	63	41	152	53086
70-80	106	11	99	139	175	120	129	87	68	50	15	106	68634
80-90	138	22	20	97	222	128	120	66	52	54	65	157	65981
90-100	111	5	36	75	131	156	182	95	92	64	37	126	74219

Grade 9 Girls

X	A	B	C	D	E	F	G	H	I	J	K	N
768	194	93	97	89	49	77	35	36	26	40	263	23637
484	210	189	99	89	113	71	29	17	58	47	79	36141
359	262	214	113	60	58	87	59	34	27	9	76	45963
278	147	196	162	176	68	53	47	22	30	22	78	57641
303	228	163	135	108	69	61	52	32	33	29	90	58689
312	139	200	196	108	94	50	18	46	47	34	67	63979
272	146	194	201	123	98	41	42	33	42	17	64	64825
230	96	181	233	148	108	58	46	35	33	17	44	69779
273	90	144	211	143	100	146	37	42	50	18	20	69201
203	87	150	196	174	121	104	59	35	29	14	31	88685

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	N
0-10	197	28	91	181	209	120	98	57	46	15	19	136	52535
10-20	119	28	102	146	176	171	87	59	38	60	24	110	50777
20-30	116	13	76	208	224	179	70	53	24	33	24	96	48981
30-40	135		53	219	238	109	119	63	58	32	9	101	42335
40-50	94	19	37	134	196	185	140	78	24	38	19	131	54789
50-60	107	9	46	98	247	191	119	73	48	42	21	106	45985
60-70	62	11	18	159	174	166	128	74	31	61	45	133	53077
70-80	58	8	15	172	189	173	136	81	61	40	18	107	56287
80-90	64	13	14	77	174	170	169	82	58	48	29	165	70800
90-100	58	9	18	58	139	168	176	84	100	75	26	148	59689

Grade 12 Girls

X	A	B	C	D	E	F	G	H	I	J	K	N
239	136	258	108	72	131	47	69	11	30	34	104	30473
229	150	269	121	172	50	45	29	35	36	17	78	36478
173	121	250	248	117	45	57	41	13	22	26	61	48558
95	103	263	141	175	69	59	54	53	27	28	28	39476
147	100	234	219	166	117	56	14	29	23		42	50497
120	49	242	233	215	99	50	27	38	18	4	25	58160
79	68	221	314	158	81	45	31	28	35	8	13	56577
83	110	194	273	217	84	51	31	7	9	10	13	62411
123	74	181	320	171	99	48	8	27	29	12	32	67904
108	115	134	264	200	105	46	67	14	20	10	27	55261

240. How much money is the least amount of earnings (per year) that would satisfy you in the twentieth year after you graduate from high school?

A. $2,500 or less
B. $2,500 to $5,000
C. $5,000 to $7,500
D. $7,500 to $10,000
E. $10,000 to $12,500
F. $12,500 to $15,000
G. $15,000 to $17,500
H. $17,500 to $20,000
I. $20,000 to $22,000
J. $22,500 to $25,000
K. $25,000 or more

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	N
0-10	524	164	100	106	97	111	65	61	73	32	57	135	67211
10-20	464	136	152	149	103	96	59	81	50	11	29	135	55871
20-30	309	103	168	155	156	103	50	82	32	42	40	71	56390
30-40	262	93	166	167	158	110	71	56	34	34	6	106	61232
40-50	269	65	156	214	152	115	77	52	32	37	16	85	50804
50-60	186	71	172	186	177	102	62	66	48	36	10	69	52950
60-70	195	74	131	191	173	120	52	66	42	61	16	73	52918
70-80	116	44	196	234	153	117	65	57	38	21	28	49	67968
80-90	128	42	98	249	216	117	63	61	47	50	20	37	66541
90-100	89	21	113	221	223	121	107	57	44	18	40	35	75701

Grade 9 Girls

X	A	B	C	D	E	F	G	H	I	J	K	N
746	213	137	119	34	114	52	34	65	17	31	183	23937
509	331	191	86	73	16	61	29	53	39	24	98	35527
384	281	173	85	97	76	56	25	39	13	29	126	45151
274	239	184	131	130	69	55	25	27	37	10	92	57795
354	274	174	147	74	62	69	53	30	23	7	89	56500
271	251	194	182	86	106	33	6	39	25	31	48	66013
255	231	229	162	110	72	38	48	41	27	13	28	65687
216	174	294	213	130	54	33	32	18	19	17	16	70582
239	157	245	220	140	111	33	24	26	13	12	21	71079
191	172	255	193	170	94	45	29	9	10	6	16	89552

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	G	H	I	J	K	N
0-10	184	53	117	224	196	98	50	60	22	28	28	124	53090
10-20	93	44	137	187	256	124	50	40	40	24	20	78	52027
20-30	74	50	166	294	172	94	52	59	34	8	22	49	50921
30-40	106	23	198	304	158	122	47	44	19	19	14	53	43451
40-50	93	22	142	232	271	130	72	30	29	9	14	48	54829
50-60	99	22	121	240	258	105	45	70	28	30	14	67	46354
60-70	46	23	115	241	221	114	84	55	40	17	7	84	53892
70-80	79	22	133	255	223	116	71	40	40	26	16	58	55230
80-90	62	21	45	217	253	177	73	82	25	22	14	70	70902
90-100	69	20	27	227	272	166	96	56	40	33	6	58	59066

Grade 12 Girls

X	A	B	C	D	E	F	G	H	I	J	K	N
166	170	237	162	70	61	41	36	18	40	40	125	31610
252	246	233	135	124	77	28	6	46	27	17	61	35820
160	186	282	214	98	70	32	35	41	12	3	28	49083
94	233	276	139	108	75	39	27	32	20	42	19	39506
157	174	266	250	109	66	25	33	19	15	16	27	50078
110	169	300	226	133	72	30	22	11	4	14	20	58694
86	194	310	239	107	75	21	19	14		6	16	56216
87	177	322	260	127	54	17	30	4	7		3	62208
117	141	321	256	129	60	16	24	9	24	12	7	68281
103	179	207	287	167	73	34	21		12	4	17	55498

302. Which type of college are you more likely to attend?

A. Four-year college
B. Junior college
C. I don't know which I will attend.
D. I don't expect to go to college.

Grade 9 Boys

%-ile	X	A	B	C	D	N
0-10	829	179	120	270	431	56002
10-20	558	174	89	250	487	52521
20-30	426	188	88	271	453	51732
30-40	416	213	90	286	411	54584
40-50	410	288	100	224	388	45740
50-60	317	349	110	251	290	47669
60-70	258	477	92	212	219	50272
70-80	205	480	54	258	208	62993
80-90	133	664	28	192	115	66244
90-100	105	785	27	124	64	74646

Grade 9 Girls

%-ile	X	A	B	C	D	N
0-10	1374	95	169	308	428	17608
10-20	550	179	94	275	452	34595
20-30	285	110	115	279	497	48513
30-40	206	127	77	303	494	61085
40-50	189	166	59	271	504	64316
50-60	133	220	58	280	433	74109
60-70	134	261	67	311	360	72716
70-80	76	322	75	254	349	79746
80-90	54	425	45	283	246	83608
90-100	62	622	44	213	121	100413

Grade 12 Boys

%-ile	X	A	B	C	D	N
0-10	296	157	104	144	595	48541
10-20	120	181	106	184	529	50750
20-30	112	246	119	153	482	49147
30-40	77	287	127	107	478	44629
40-50	70	328	122	150	399	56017
50-60	84	443	112	125	321	46978
60-70	71	515	93	110	282	52649
70-80	48	671	88	102	139	56861
80-90	49	716	107	97	80	71769
90-100	29	919	36	25	20	81357

Grade 12 Girls

%-ile	X	A	B	C	D	N
0-10	211	126	99	214	561	30977
10-20	97	135	89	201	575	40867
20-30	39	165	100	181	554	54802
30-40	14	167	103	147	583	42614
40-50	29	174	99	174	552	56304
50-60	35	234	117	152	497	62598
60-70	7	310	89	197	404	60659
70-80	15	373	83	141	403	66626
80-90	5	566	99	80	254	75909
90-100		789	27	50	133	61202

303. When do you plan to start college?

A. I don't plan to go to college.
B. I plan to start college right after high school.
C. I plan to start college after completing military service.
D. I plan to start college after I have worked for a few years.
E. I may go to college sometime in the future, but my plans are not definite.

Grade 9 Boys

%-ile	X	A	B	C	D	E	N
0-10	863	292	234	214	122	139	55008
10-20	600	429	210	182	95	84	51154
20-30	449	397	236	147	75	145	50932
30-40	439	380	302	126	75	117	53710
40-50	410	317	346	118	78	141	45737
50-60	338	308	379	139	85	89	46911
60-70	280	218	501	101	59	121	49415
70-80	210	203	515	110	29	143	62715
80-90	140	103	682	87	20	107	65833
90-100	99	46	751	72	36	95	74996

Grade 9 Girls

%-ile	X	A	B	C	D	E	N
0-10	1320	419	204	102	152	123	18011
10-20	544	433	270	65	73	158	34737
20-30	298	498	286	20	50	146	48151
30-40	201	481	311	22	50	136	61305
40-50	195	498	340	14	36	111	64019
50-60	139	431	420	10	40	99	73679
60-70	146	357	459	8	45	132	71923
70-80	90	332	517	11	39	100	78760
80-90	51	222	660	7	22	89	83808
90-100	63	125	765	2	28	80	100291

Grade 12 Boys

%-ile	X	A	B	C	D	E	N
0-10	313	526	163	91	85	135	47920
10-20	124	490	236	65	65	144	50548
20-30	127	490	229	64	38	179	48503
30-40	76	452	345	30	57	116	44668
40-50	73	388	379	63	66	105	55831
50-60	70	323	499	51	23	105	47595
60-70	57	275	575	43	23	83	53349
70-80	52	142	696	43	30	89	56641
80-90	49	72	767	45	35	81	71769
90-100	29	29	920	21	13	17	61357

Grade 12 Girls

%-ile	X	A	B	C	D	E	N
0-10	219	500	235	40	87	138	30754
10-20	104	569	264	5	54	108	40617
20-30	45	535	265	18	72	109	54466
30-40	14	564	272		51	114	42600
40-50	25	547	270	8	50	125	56518
50-60	31	446	355	3	40	155	65176
60-70	6	398	453		40	108	60725
70-80	10	397	470	5	57	70	66966
80-90	8	253	675		20	53	75698
90-100	4	120	821	2	21	37	60985

304. What is the greatest amount of education you expect to have during your life?

A. I don't expect to finish high school.
B. I expect to graduate from high school.
C. I expect to obtain vocational, business school, or junior college training.
D. I expect to obtain some (less than 4 years) regular college training.
E. I expect to graduate from a regular four-year college.
F. I expect to study for advanced college degrees.

Grade 9 Boys

%-ile	X	A	B	C	D	E	F	N
0-10	897	167	328	180	116	97	113	54014
10-20	654	133	368	170	147	96	85	49465
20-30	478	116	430	143	107	153	50	49939
30-40	435	80	364	126	150	195	86	53865
40-50	429	78	306	114	162	268	71	45120
50-60	358	37	311	138	140	262	112	46217
60-70	297	18	238	109	120	337	178	48784
70-80	221	19	168	136	102	393	182	62132
80-90	143		109	60	107	462	263	65672
90-100	101	3	44	46	46	518	343	74866

Grade 9 Girls

%-ile	X	A	B	C	D	E	F	N
0-10	1308	159	449	128	68	70	127	18104
10-20	583	175	426	121	86	144	49	33876
20-30	316	102	490	133	86	127	61	47470
30-40	219	50	479	197	80	131	63	60401
40-50	224	52	439	175	97	164	73	62489
50-60	151	49	354	232	51	266	48	72934
60-70	144	26	308	234	77	291	63	72092
70-80	96	20	288	219	102	278	92	78328
80-90	58	10	154	240	93	380	123	83282
90-100	61	2	76	147	96	506	173	100503

Grade 12 Boys

%-ile	X	A	B	C	D	E	F	N
0-10	318	13	505	185	77	69	91	47720
10-20	127	54	416	184	152	148	45	50428
20-30	127	15	435	169	130	190	61	48515
30-40	76	12	373	221	122	204	69	44668
40-50	73	4	317	194	112	292	80	55831
50-60	80	16	259	156	96	295	178	47150
60-70	69	6	180	194	113	367	139	52737
70-80	59	4	112	97	90	431	265	56229
80-90	49		59	103	64	410	364	71769
90-100	29		17	17	20	373	573	61366

Grade 12 Girls

%-ile	X	A	B	C	D	E	F	N
0-10	219	50	542	204	87	97	21	30761
10-20	98	15	488	277	110	66	44	40854
20-30	45	27	407	319	75	133	39	54460
30-40	23		464	344	50	103	40	42258
40-50	29	3	404	332	88	141	33	56312
50-60	24		305	400	98	151	46	63588
60-70	2		237	340	135	226	62	60935
70-80	10		238	297	111	249	106	66966
80-90	11		164	196	129	386	126	75486
90-100	4		62	100	91	497	250	60985

305. Have you taken, or do you expect to take, the National Merit Scholarship tests?

A. No, I have not taken, nor do I expect to take these tests.
B. Yes, I expect to take these tests.
C. Yes, I have taken these tests.

Grade 9 Boys

%-ile	X	A	B	C	N
0-10	924	376	315	310	53239
10-20	676	493	334	173	48816
20-30	540	593	276	132	47906
30-40	484	694	226	80	52086
40-50	470	638	280	82	43861
50-60	420	572	253	76	44215
60-70	329	487	455	58	47579
70-80	229	450	501	50	61748
80-90	161	372	597	32	64641
90-100	124	224	748	28	73372

Grade 9 Girls

X	A	B	C	N
1476	622	207	171	16879
635	610	320	70	32803
324	745	228	26	47205
279	719	257	24	57594
233	766	211	23	62067
177	726	274		71335
192	651	344	6	69183
125	593	392	15	76305
88	447	545	9	80972
97	313	671	16	97229

Grade 12 Boys

%-ile	X	A	B	C	N
0-10	337	760	97	143	47030
10-20	129	775	94	130	50348
20-30	122	778	94	128	48710
30-40	81	734	90	176	44437
40-50	77	720	77	204	55618
50-60	84	689	54	258	46978
60-70	73	590	63	347	52524
70-80	59	473	63	464	56241
80-90	49	376	56	568	71769
90-100	32	151	44	805	61180

Grade 12 Girls

X	A	B	C	N
228	811	116	73	30542
97	791	94	116	40881
54	817	77	105	54035
14	786	86	128	42600
33	786	58	156	56092
24	755	29	215	63588
4	704	45	252	60892
13	612	33	355	66753
13	385	37	577	75292
	191	49	760	61202

306. If there were no other way for you to attend college, would you be willing to take out a loan which you would have to pay back after you graduate?

A. Yes
B. No

Grade 9 Boys

%-ile	X	A	B	N
0-10	933	395	605	53011
10-20	678	408	592	48756
20-30	507	416	584	48961
30-40	471	480	520	52528
40-50	439	485	515	44797
50-60	362	544	456	46145
60-70	308	682	318	48359
70-80	211	694	306	62661
80-90	147	821	179	65432
90-100	119	861	139	73694

Grade 9 Girls

X	A	B	N
1479	440	560	16858
639	501	499	32712
314	443	557	47557
254	461	539	58735
234	544	456	61981
166	547	453	71973
154	600	400	71460
123	650	350	76441
75	710	290	81943
82	805	195	98560

Grade 12 Boys

%-ile	X	A	B	N
0-10	310	396	604	48001
10-20	143	423	577	49720
20-30	127	482	518	48524
30-40	86	565	435	44237
40-50	82	591	409	55398
50-60	90	633	367	46732
60-70	65	681	319	52937
70-80	59	770	230	56241
80-90	61	849	151	70962
90-100	29	924	76	61366

Grade 12 Girls

X	A	B	N
227	532	468	30569
103	533	467	40668
53	567	433	54046
19	547	453	42388
31	514	486	56198
24	615	385	63588
11	693	307	60377
16	685	315	66549
11	740	260	75478
4	869	131	60971

A P P E N D I X F

RESPONSES TO INTEREST INVENTORY ITEMS BY GRADE AND SEX

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NOTES TO APPENDIX F

1. The instructions for completing the Interest Inventory were as follows:

"This section contains items for you to answer about occupations you would like and things you would like to do. For each item assume that you would have any necessary training or education that would be required. Disregard salary, social standing, permanence, etc., in fact anything except how well you would like to do the work or the activity. Your answer does not mean that you plan to go into an occupation if you say you would like it -- only that it involves the kind of activity you think you would enjoy.

Begin now.

Part I: OCCUPATIONS

"Directions: For each occupation listed below you are to consider whether or not you would like that kind of work. Work quickly. Your first impression is the most valuable. Be sure to answer all of the items. Mark your answers as follows:

A. I would like this very much
B. I would like this fairly well
C. Indifferent or don't know much about it
D. I would dislike this a little
E. I would dislike this very much

Part II: ACTIVITIES

"Indicate as in Part I how much you like or would like each of the following: (same as in Part I)."

2. The accompanying tables are based upon the unweighted responses of those students who were in the 4-per-cent sample as follows:

	Grade 9	Grade 10	Grade 11	Grade 12
Boys	1326	1333	1228	1088
Girls	1433	1340	1240	1185

For a complete description of this 4-per-cent sample see Appendix A.

3. The figures shown in this appendix are the average scores of each group based upon the following values for each of the options: A=1, B=2, C=3, D=4, and E=5. Therefore, a low numerical value indicates high interest and a high value indicates low interest.

4. The Interest Inventory was scored for 17 scales. The items which composed each scale and the number of items in each were as follows:

INTEREST INVENTORY ITEMS

Scale No.	Scale	No. of Items	Item Number
1.	Physical Science, Engineering, Math	16	04, 05, 27, 28, 45, 48, 68, 69, 90, 91, 126, 128, 162, 163, 164, 180
2.	Bio.Sci., and Medicine	8	03, 06, 46, 67, 125, 127, 161, 181
3.	Public Service	11	113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 205
4.	Literary-linguistic	16	19, 20, 39, 40, 58, 59, 82, 83, 104, 105, 136, 154, 176, 184, 185, 197
5.	Social Service	12	25, 43, 44, 64, 88, 109, 110, 111, 123, 142, 177, 178
6.	Artistic	7	41, 85, 86, 106, 107, 156, 200
7.	Musical	5	21, 84, 155, 187, 198
8.	Sports	8	62, 87, 139, 140, 157, 158, 189, 203
9.	Hunting and fishing	3	138, 175, 188
10.	Business management	14	14, 16, 37, 57, 79, 101, 102, 134, 150, 151, 169, 170, 194, 195
11.	Sales	6	17, 18, 81, 103, 172, 183
12.	Computation	10	01, 02, 26, 65, 89, 124, 143, 144, 160, 179
13.	Office	7	29, 49, 70, 92, 129, 146, 165
14.	Mechanical-technical	15	07, 08, 31, 32, 50, 51, 71, 72, 93, 94, 130, 147, 148, 166, 192
15.	Skilled trades	18	09, 10, 11, 33, 52, 53, 54, 73, 74, 75, 95, 96, 97, 131, 132, 149, 167, 193
16.	Farming	7	23, 42, 108, 141, 159, 190, 204
17.	Labor	10	12, 13, 34, 35, 56, 76, 77, 78, 133, 168
	Not included in any scale	32	15, 22, 24, 30, 36, 38, 47, 55, 60, 61, 63, 66, 80, 98, 99, 100, 112, 135, 137, 145, 152, 153, 171, 173, 174, 182, 186, 191, 196, 199, 201, 202
	Total	205	

5. The time limit for the inventory was 20 minutes and not all students completed it. The table below shows the percentage of students who completed various items:

Item No.	Boys				Girls			
	Gr. 9	Gr.10	Gr.11	Gr.12	Gr. 9	Gr.10	Gr.11	Gr.12
1	99.7	99.7	99.9	99.8	99.5	99.9	99.9	99.8
51	99.1	98.8	99.3	98.9	98.8	99.2	99.6	99.7
101	96.8	97.1	98.9	97.1	97.3	98.0	98.6	98.2
151	92.0	92.9	95.8	97.1	93.2	95.8	96.1	98.0
201	80.5	83.3	86.6	89.0	88.1	90.5	92.0	94.0
205	79.6	82.6	86.4	89.2	87.2	90.1	92.3	94.3

TABLE F-1

Means of Responses to Interest Inventory Items by Sex and Grade and the Scale In Which Each Item Is Scored

Males				Item No.	Occupation	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
3.622	3.583	3.477	3.279	01	Bookkeeper	12. Comp.	2.684	2.788	2.802	2.861
3.288	3.292	3.197	3.129	02	Bank teller	12. Comp.	3.175	3.174	3.010	2.909
3.228	3.273	3.236	3.210	03	Surgeon	2. Bio.	3.454	3.374	3.429	3.346
2.754	2.857	2.912	2.831	04	Chemist	1. Phys.	3.573	3.559	3.594	3.546
2.635	2.640	2.584	2.518	05	Civil engineer	1. Phys.	4.205	4.150	4.041	3.964
3.410	3.351	3.365	3.259	06	Dentist	2. Bio.	4.030	3.948	3.918	3.788
3.276	3.198	3.182	3.104	07	Toolmaker	14. Mech.	4.555	4.609	4.568	4.535
2.529	2.497	2.564	2.681	08	Automobile mechanic	14. Mech.	4.490	4.523	4.435	4.382
3.980	3.851	3.839	3.802	09	Butcher	15. Skill.	4.494	4.536	4.541	4.518
4.262	4.231	4.275	4.181	10	Tailor or dressmaker	15. Skill.	2.691	2.777	2.775	2.723
4.049	4.076	4.085	4.101	11	Dietitian	15. Skill.	3.284	3.099	2.994	2.905
3.502	3.508	3.547	3.525	12	Cab driver	17. Labor	4.313	4.265	4.258	4.206
3.496	3.495	3.497	3.527	13	Longshoreman	17. Labor	4.171	4.210	4.245	4.205
2.641	2.667	2.572	2.533	14	Foreman	10. BusMgt.	3.936	3.956	3.915	3.823
2.522	2.522	2.568	2.550	15	Army officer	Misc.	3.597	3.661	3.568	3.524
3.056	3.115	3.091	2.884	16	College president	10. BusMgt.	3.145	3.177	3.216	3.107
3.343	3.316	3.234	3.140	17	Insurance agent	11. Sales	3.752	3.723	3.733	3.611
3.366	3.360	3.247	3.152	18	Stock salesman	11. Sales	3.909	3.878	3.815	3.668
3.192	3.190	2.993	2.942	19	Foreign correspondent	4. Liter.	2.791	2.690	2.559	2.390
3.261	3.191	3.124	3.052	20	Editor	4. Liter.	2.847	2.838	2.814	2.767
3.460	3.315	3.324	3.201	21	Musician	7. Music.	2.960	2.908	2.862	2.797
2.291	2.330	2.257	2.223	22	Aviator	Misc.	3.575	3.511	3.396	3.255
2.429	2.346	2.376	2.398	23	Rancher	16. Farm	2.870	2.903	2.820	2.796
3.802	3.862	3.891	3.805	24	Air line hostess or steward	Misc.	1.878	1.912	1.879	1.854
3.580	3.593	3.624	3.494	25	Social worker	5. SocSer.	2.372	2.290	2.162	2.114
3.598	3.602	3.602	3.447	26	Statistician	12. Comp.	3.495	3.461	3.420	3.451
2.922	3.108	3.123	3.092	27	Astronomer	1. Phys.	3.633	3.658	3.681	3.563
2.715	2.786	2.800	2.781	28	Research scientist	1. Phys.	3.437	3.441	3.348	3.326
3.516	3.563	3.511	3.472	29	Office clerk	13. Office	2.790	2.889	2.740	2.720
3.511	3.496	3.520	3.496	30	Store clerk	Misc.	3.069	3.097	3.085	3.152
3.766	3.677	3.626	3.595	31	Plumber	14. Mech.	4.672	4.671	4.621	4.620
2.804	2.863	2.839	2.850	32	Electrician	14. Mech.	4.468	4.553	4.489	4.441
3.506	3.505	3.515	3.476	33	Fireman	15. Skill.	4.583	4.568	4.544	4.468
4.636	4.644	4.693	4.658	34	Dish washer	17. Labor	4.435	4.517	4.516	4.500
4.630	4.666	4.666	4.701	35	Maid	17. Labor	4.086	4.182	4.297	4.308

TABLE F-1 (continued)

Males				Item No.	Occupation	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
2.467	2.452	2.440	2.460	36	Naval officer	Misc.	3.648	3.638	3.552	3.492
3.394	3.315	3.210	3.059	37	Personnel administrator	10. BusMgt.	3.319	3.195	2.981	2.783
3.513	3.454	3.367	3.204	38	Credit manager	Misc.	3.427	3.430	3.249	3.101
2.799	2.777	2.726	2.611	39	Lawyer	4. Liter.	2.966	2.938	2.931	2.802
3.118	3.085	3.007	2.929	40	Reporter	4. Liter.	2.787	2.775	2.739	2.692
3.740	3.712	3.728	3.663	41	Sculptor	6. Art	3.658	3.691	3.576	3.448
2.942	2.944	2.780	2.754	42	Forester	16. Farm.	3.847	3.896	3.819	3.749
4.028	3.995	3.989	3.813	43	Elementary school teacher	5. SocSer.	2.423	2.503	2.530	2.382
4.492	4.462	4.454	4.340	44	Nurse	5. SocSer.	2.493	2.526	2.607	2.569
2.785	2.823	2.859	2.808	45	Chemical engineer	1. Phys.	3.915	3.913	3.840	3.785
2.956	3.001	3.016	2.958	46	Doctor	2. Bio.	3.113	3.082	3.077	3.008
3.223	3.147	3.112	3.013	47	Pharmacist	Misc.	3.551	3.445	3.409	3.309
2.727	2.681	2.675	2.599	48	Aeronautical engineer	1. Phys.	4.036	4.002	3.952	3.921
4.001	3.972	4.012	3.918	49	Secretary	13. Office	1.959	2.085	2.120	2.165
2.933	2.929	2.926	2.757	50	Technician	14. Mech.	3.652	3.538	3.413	3.178
2.828	2.788	2.769	2.719	51	Electronics technician	14. Mech.	4.180	4.162	4.101	4.009
3.715	3.700	3.618	3.478	52	Bricklayer	15. Skill.	4.682	4.685	4.663	4.642
3.877	3.781	3.800	3.707	53	Riveter	15. Skill.	4.547	4.617	4.564	4.604
3.909	3.889	3.900	3.837	54	House painter	15. Skill.	4.511	4.522	4.485	4.480
3.839	3.852	3.863	3.803	55	Mail carrier	Misc.	4.464	4.472	4.417	4.389
3.255	3.270	3.242	3.135	56	Building superintendent	17. Labor	4.056	4.057	4.025	3.969
2.653	2.575	2.448	2.299	57	President of a large company	10. BusMgt.	3.042	3.032	2.980	2.852
3.445	3.342	3.250	3.068	58	Author of a novel	4. Liter.	2.708	2.677	2.608	2.521
4.081	4.137	4.130	4.117	59	Librarian	4. Liter.	2.767	2.871	2.842	2.866
3.823	3.760	3.784	3.574	60	Economist	Misc.	3.214	3.233	3.181	3.071
3.188	3.194	3.111	3.066	61	Actor or actress	Misc.	2.371	2.530	2.537	2.632
2.329	2.294	2.275	2.279	62	Professional athlete	8. Sport	3.234	3.261	3.365	3.312
3.099	3.112	3.025	3.006	63	Policeman	Misc.	4.017	3.973	3.977	3.870
3.592	3.559	3.611	3.527	64	Clergyman	5. SocSer.	3.958	3.898	3.892	3.643
3.582	3.485	3.413	3.162	65	Certified Public Accountant	12. Comp.	3.771	3.708	3.498	3.328
2.908	2.966	2.933	2.921	66	Spaceman	Misc.	4.079	4.094	4.047	4.046
2.995	3.053	3.090	3.083	67	Biologist	2. Bio.	3.728	3.613	3.639	3.526
2.549	2.549	2.558	2.460	68	Electrical engineer	1. Phys.	4.367	4.397	4.301	4.215
3.103	3.025	2.910	2.770	69	Mining engineer	1. Phys.	4.465	4.528	4.421	4.358
3.868	3.795	3.884	3.785	70	Typist	13. Office	2.012	2.110	2.140	2.214

TABLE F-1 (continued)

Males				Item No.	Occupation	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
3.162	3.113	3.162	3.001	71	Laboratory technician	14. Mech.	3.529	3.405	3.270	3.030
3.409	3.392	3.391	3.270	72	Repairman	14. Mech.	4.459	4.488	4.449	4.397
4.227	4.279	4.280	4.252	73	Beautician	15. Skill.	2.421	2.449	2.443	2.507
3.779	3.834	3.892	3.807	74	Railroad brakeman	15. Skill.	4.645	4.675	4.586	4.607
4.102	4.117	4.192	4.155	75	Shoemaker	15. Skill.	4.575	4.572	4.532	4.538
3.673	3.677	3.771	3.730	76	Factory worker	17. Labor	4.253	4.295	4.280	4.330
3.730	3.712	3.719	3.676	77	Deliveryman	17. Labor	4.512	4.556	4.522	4.452
3.069	3.022	3.053	3.008	78	Truck driver	17. Labor	4.572	4.604	4.533	4.492
2.888	2.844	2.749	2.657	79	Building contractor	10. BusMgt.	4.287	4.264	4.213	4.080
2.589	2.624	2.643	2.639	80	Marine Corps officer	Misc.	3.720	3.748	3.736	3.657
3.497	3.468	3.388	3.194	81	Real estate agent	11. Sales	3.869	3.766	3.664	3.502
3.622	3.635	3.605	3.486	82	Interpreter	4. Liter.	3.245	3.187	3.016	2.798
3.649	3.660	3.544	3.435	83	Writer	4. Liter.	2.885	2.847	2.832	2.691
3.815	3.771	3.769	3.621	84	Musical composer	7. Music	3.324	3.258	3.207	3.044
3.000	2.900	2.832	2.611	85	Architect	6. Art	3.529	3.406	3.332	3.127
3.625	3.511	3.418	3.225	86	Decorator	6. Art	2.434	2.314	2.245	2.005
3.120	3.157	3.173	3.106	87	Sports umpire or referee	8. Sport	3.961	3.994	3.984	3.926
3.614	3.669	3.587	3.354	88	Guidance counselor	5. SocSer.	3.049	2.810	2.653	2.513
3.645	3.595	3.523	3.269	89	Accountant or auditor	12. Comp.	3.620	3.593	3.472	3.239
2.516	2.475	2.472	2.413	90	Mechanical engineer	1. Phys.	4.329	4.327	4.284	4.180
3.184	3.104	3.211	2.972	91	Mathematician	1. Phys.	3.759	3.807	3.832	3.752
3.964	3.999	4.023	3.973	92	Switchboard operator	13. Office	2.875	2.889	2.801	2.715
3.102	3.089	3.137	3.062	93	Machinist	14. Mech.	4.316	4.400	4.360	4.310
3.313	3.307	3.268	3.160	94	Welder	14. Mech.	4.576	4.653	4.574	4.594
4.140	4.193	4.128	4.184	95	Paper hanger	15. Skill.	4.521	4.568	4.541	4.562
3.233	3.311	3.318	3.243	96	Carpenter	15. Skill.	4.535	4.564	4.484	4.451
3.904	3.899	3.841	3.776	97	Type setter	15. Skill.	3.901	3.998	3.899	3.965
3.314	3.218	3.119	2.897	98	Draftsman	Misc.	4.222	4.186	4.156	4.028
4.596	4.654	4.663	4.681	99	Housewife	Misc.	1.726	1.732	1.642	1.545
2.266	2.368	2.333	2.387	100	Air Force officer	Misc.	3.527	3.533	3.476	3.413
3.118	3.130	3.018	2.833	101	Office manager	10. BusMgt.	3.259	3.204	2.984	2.795
3.167	3.126	3.091	2.883	102	Banker	10. BusMgt.	3.433	3.424	3.271	3.072
3.652	3.622	3.639	3.394	103	Salesman	11. Sales	3.931	3.898	3.860	3.757
3.531	3.454	3.452	3.230	104	College professor	4. Liter.	3.652	3.493	3.529	3.285
4.050	4.053	4.021	3.919	105	Poet	4. Liter.	3.680	3.672	3.503	3.417

TABLE F-1 (continued)

Males				Item No.	Occupation	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
3.557	3.526	3.560	3.440	106	Artist	6. Art	3.051	3.074	2.957	2.818
3.251	3.193	3.186	2.941	107	Designer	6. Art	2.526	2.387	2.289	2.189
3.189	3.183	3.232	3.273	108	Farmer	16. Farm	3.851	3.883	3.806	3.709
3.711	3.632	3.642	3.329	109	High-school teacher	5. SocSer.	2.947	2.960	3.020	2.818
3.562	3.560	3.667	3.511	110	Religious worker	5. SocSer.	2.987	2.951	2.936	2.781
3.721	3.740	3.662	3.397	111	School principal	5. SocSer.	3.511	3.546	3.554	3.380
3.469	3.453	3.409	3.186	112	Psychologist	Misc.	3.508	3.300	3.101	2.824
3.169	3.223	3.134	3.038	113	Member of President's cabinet	3. PubSer.	3.720	3.728	3.637	3.483
3.281	3.243	3.170	2.996	114	Judge	3. PubSer.	3.824	3.756	3.683	3.542
3.242	3.200	3.188	2.993	115	U. S. Senator	3. PubSer.	3.928	3.876	3.836	3.646
3.514	3.450	3.486	3.278	116	Politician	3. PubSer.	4.087	4.063	3.984	3.907
3.276	3.253	3.293	3.044	117	U. S. Congressman	3. PubSer.	4.022	3.966	3.907	3.712
3.260	3.254	3.249	3.071	118	Mayor	3. PubSer.	3.988	3.938	3.890	3.755
3.083	3.128	3.083	3.035	119	President of the United States	3. PubSer.	3.858	3.886	3.883	3.876
3.118	3.180	3.124	3.058	120	Vice President of the United States	3. PubSer.	3.906	3.920	3.927	3.845
3.167	3.218	3.219	3.013	121	State Governor	3. PubSer.	3.950	3.944	3.934	3.778
3.531	3.540	3.464	3.245	122	Public administrator	3. PubSer.	3.850	3.842	3.726	3.564

Males				Item No.	Activities	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
3.059	3.071	3.038	2.967	123	Take care of members of family	5. SocSer.	2.210	2.151	2.159	2.098
3.925	3.812	3.815	3.623	124	Make out income tax returns	12. Comp.	4.063	3.944	3.874	3.753
3.118	3.138	3.204	3.118	125	Biology	2. Bio.	3.533	3.355	3.415	3.266
3.181	3.147	3.199	3.056	126	Physics	1. Phys.	3.792	3.766	3.867	3.814
3.342	3.260	3.323	3.190	127	Study muscles and nerves	2. Bio.	3.698	3.552	3.562	3.415
3.519	3.417	3.442	3.261	128	Calculus	1. Phys.	3.926	3.882	3.915	3.898
3.728	3.661	3.644	3.494	129	Keep records for a store	13. Office	3.294	3.334	3.227	3.197
3.031	2.959	2.898	2.813	130	Invent new tools	14. Mech.	4.311	4.303	4.255	4.159
3.476	3.491	3.511	3.437	131	Fix furniture	15. Skill.	4.350	4.328	4.250	4.137
2.988	2.978	3.089	3.181	132	Work on an automobile assembly line	15. Skill.	4.520	4.519	4.465	4.424
4.573	4.589	4.640	4.651	133	Wash and iron clothes	17. Labor	3.668	3.632	3.510	3.484
3.589	3.593	3.520	3.335	134	Plan work for other people	10. BusMgt.	3.418	3.240	3.152	3.094
2.115	2.087	1.958	1.872	135	Own your own business	Misc.	2.509	2.462	2.297	2.249
3.367	3.350	3.258	3.088	136	Reading	4. Liter.	2.631	2.591	2.443	2.257
3.493	3.477	3.466	3.275	137	Sociology	Misc.	3.256	3.063	2.905	2.693

TABLE F-1 (continued)

Males				Item No.	Activities	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
2.210	2.149	2.253	2.236	138	Fishing	9. OutDr.	3.379	3.316	3.176	3.051
2.156	2.190	2.198	2.187	139	Basketball	8. Sport	2.827	2.717	2.776	2.613
2.706	2.726	2.668	2.565	140	Tennis	8. Sport	2.489	2.489	2.490	2.348
2.979	2.966	2.920	2.973	141	Raise sheep or cattle for market	16. Farm	3.963	3.900	3.830	3.786
2.274	2.297	2.314	2.327	142	Help your parents	5. SocSer.	2.025	2.005	1.997	1.933
3.230	3.115	3.228	2.996	143	Work arithmetic problems	12. Comp.	3.514	3.587	3.573	3.444
3.563	3.493	3.522	3.267	144	Prepare cost estimates	12. Comp.	3.840	3.791	3.734	3.688
4.396	4.415	4.431	4.484	145	Fortune telling	Misc.	4.295	4.319	4.273	4.290
3.672	3.699	3.763	3.667	146	Typewriting	13. Office	2.056	2.171	2.139	2.204
2.717	2.820	2.853	2.798	147	Make a radio set	14. Mech.	4.057	4.058	3.996	3.935
3.042	3.082	3.064	2.992	148	Fix a clock	14. Mech.	4.156	4.096	4.049	3.933
2.749	2.730	2.805	2.803	149	Operate a power machine	15. Skill.	4.305	4.259	4.185	4.132
4.054	4.065	4.037	4.110	150	Fire a person	10. BusMgt.	4.511	4.505	4.554	4.598
2.829	2.892	2.742	2.665	151	Manage a large store	10. BusMgt.	3.056	2.999	3.029	2.966
1.855	1.780	1.687	1.685	152	Save money	Misc.	1.660	1.699	1.594	1.552
2.088	1.949	1.881	1.787	153	Work for myself	Misc.	2.332	2.175	2.039	1.973
3.716	3.737	3.765	3.629	154	Write letters	4. Liter.	2.678	2.688	2.611	2.539
4.229	4.207	4.237	4.194	155	Practice music all day	7. Music	3.856	3.827	3.833	3.769
3.914	3.936	3.903	3.868	156	Art galleries	6. Art	3.530	3.454	3.362	3.252
2.247	2.200	2.146	2.170	157	Football	8. Sport	3.626	3.458	3.349	3.281
2.496	2.480	2.469	2.462	158	Track	8. Sport	3.798	3.729	3.641	3.623
2.927	2.874	2.943	3.002	159	Operate farm machinery	16. Farm	4.273	4.229	4.224	4.184
3.158	3.086	3.170	3.051	160	Operate a calculating machine	12. Comp.	3.909	3.833	3.540	3.268
3.270	3.256	3.334	3.177	161	Physiology	2. Bio.	3.620	3.466	3.338	3.203
2.854	2.906	3.025	2.892	162	Chemistry	1. Phys.	3.649	3.600	3.552	3.513
3.287	3.221	3.296	3.220	163	Play chess	1. Phys.	3.791	3.734	3.619	3.544
3.339	3.258	3.244	3.080	164	Solve puzzles	1. Phys.	3.327	3.229	3.124	2.992
3.606	3.571	3.599	3.493	165	Do clerical work	13. Office	3.278	3.206	2.831	2.713
2.498	2.411	2.439	2.413	166	Repair an auto	14. Mech.	4.381	4.317	4.260	4.198
3.114	3.023	3.017	2.995	167	Operate a crane or derrick	15. Skill.	4.510	4.551	4.469	4.481
3.400	3.390	3.377	3.365	168	Work in a steel mill	17. Labor	4.533	4.563	4.529	4.566
2.809	2.813	2.681	2.569	169	Hire a person	10. BusMgt.	2.866	2.767	2.591	2.599
3.049	3.008	2.803	2.745	170	Give orders to workers in a factory	10. BusMgt.	3.522	3.440	3.406	3.340
2.919	2.964	2.718	2.602	171	Buy stocks	Misc.	3.388	3.275	3.068	2.914
3.472	3.514	3.494	3.441	172	Sell furniture	11. Sales	3.698	3.556	3.532	3.548

TABLE F-1 (continued)

Males				Item No.	Activity	Scale	Females			
Gr. 9	Gr.10	Gr.11	Gr.12				Gr. 9	Gr.10	Gr.11	Gr.12
2.613	2.643	2.591	2.675	173	Watch TV	Misc.	2.279	2.404	2.386	2.402
3.295	3.392	3.359	3.211	174	Act in plays	Misc.	2.400	2.469	2.495	2.561
2.778	2.650	2.723	2.733	175	Trap wild animals	9. OutDr.	3.881	3.880	3.900	3.877
3.270	3.416	3.487	3.446	176	Foreign language	4. Liter.	2.732	2.771	2.761	2.660
3.533	3.536	3.500	3.282	177	Teach children	5. SocSer.	2.135	2.109	2.089	1.928
2.542	2.602	2.613	2.569	178	Help the poor	5. SocSer.	1.845	1.826	1.775	1.708
3.504	3.423	3.447	3.297	179	Keep accounts	12. Comp.	3.092	3.148	3.092	3.036
3.121	3.124	3.178	2.988	180	Algebra	1. Phys.	3.405	3.511	3.585	3.414
2.999	2.944	3.033	2.927	181	Learn about diseases	2. Bio.	2.865	2.772	2.673	2.506
1.889	1.811	1.709	1.673	182	Become a millionaire	Misc.	2.028	1.952	1.906	1.889
3.239	3.181	3.140	3.031	183	Sell merchandise to stores	11. Sales	3.357	3.267	3.182	3.051
3.619	3.549	3.493	3.388	184	Literature	4. Liter.	3.119	2.974	2.841	2.754
3.786	3.781	3.751	3.664	185	Write themes	4. Liter.	3.267	3.292	3.182	3.225
3.038	2.986	2.938	2.838	186	Go to school	Misc.	2.545	2.569	2.505	2.441
3.765	3.718	3.715	3.593	187	Symphony concerts	7. Music	3.455	3.400	3.239	3.025
1.947	1.858	1.901	1.940	188	Hunting	9. OutDr.	3.614	3.554	3.450	3.402
1.778	1.741	1.711	1.742	189	Swimming	8. Sport	1.770	1.817	1.789	1.871
3.288	3.238	3.270	3.297	190	Feed hogs and cattle	16. Farm	4.109	4.091	4.009	4.036
3.533	3.575	3.508	3.474	191	Sell tickets for a railroad or airline	Misc.	3.387	3.301	3.047	3.033
2.944	2.953	3.015	2.972	192	Shop work	14. Mech.	4.001	3.986	3.964	4.022
3.174	3.204	3.218	3.197	193	Do odd jobs with small tools	15. Skill.	4.326	4.289	4.243	4.217
3.394	3.288	3.148	3.051	194	Direct people	10. BusMgt.	3.373	3.247	3.146	3.060
3.571	3.481	3.363	3.174	195	Arrange a strike settlement with management	10. BusMgt.	4.059	3.968	3.813	3.768
2.594	2.542	2.358	2.382	196	Invest money	Misc.	2.885	2.832	2.617	2.514
3.881	3.916	3.871	3.829	197	Poetry	4. Liter.	3.433	3.406	3.245	3.116
3.259	3.208	3.182	3.097	198	Play an instrument	7. Music	2.881	2.848	2.745	2.599
3.214	3.248	3.239	3.099	199	Studying	Misc.	3.006	3.035	2.975	2.833
2.954	2.995	3.018	2.993	200	Visit museums	6. Art	2.805	2.827	2.699	2.615
2.112	2.131	2.086	2.059	201	Exploring	Misc.	2.750	2.692	2.609	2.497
2.735	2.766	2.851	2.873	202	Military drill	Misc.	3.836	3.833	3.796	3.748
2.091	2.129	2.164	2.173	203	Baseball	8. Sport	3.038	2.942	2.900	2.799
3.323	3.323	3.303	3.280	204	Gardening	16. Farm	2.951	2.846	2.829	2.762
3.559	3.624	3.648	3.561	205	Campaign for political office	3. PubSer.	4.027	4.005	3.984	3.917

APPENDIX G

ITEMS OF THE STUDENT ACTIVITIES INVENTORY SHOWING SCALES ASSIGNED TO EACH ITEM

	Page
Notes to Appendix G	G-2
Table G-1. Scoring Pattern for Project TALENT Student Activities Inventory	G-4

NOTES TO APPENDIX G

1. All Project TALENT students were asked to indicate on Answer Sheet A what their attitude was towards a series of 150 items in the Student Activities Inventory questionnaire. The instructions given to the students in Test Booklet B were as follows:

> "This section contains questions about the things you usually do and the way you do them. Your careful answers will help indicate what kind of a person you are. This information can be very useful in personal and educational development.
>
> "Your answers will be regarded as strictly confidential. In no way will this form have anything to do with marks or grades in your courses.
>
> "You should try to answer every question. If there should be any question you would prefer not to answer, leave it blank.
>
> "Directions: For each statement below mark on the answer sheet the one of the five choices which best describes how the statement or word applies to you. Make a firm black mark.
>
> "Regarding the things I do and the way I do them, this statement describes me
>
> A. extremely well.
> B. quite well.
> C. fairly well.
> D. slightly.
> E. not very well."

The instructions given to the students by the teacher were:

> "Try to answer every question. You have 20 minutes to answer 150 questions, so don't spend a great deal of time on any one question. There are no "right" answers to these questions. Just give the answer that applies to YOU. ..."

2. These items have been grouped into 13 scales as follows:

1. R-601 Sociability
2. R-602 Social Sensitivity
3. R-603 Impulsiveness
4. R-604 Vigor
5. R-605 Calmness
6. R-606 Tidiness
7. R-607 Culture
8. R-608 Leadership
9. R-609 Self-Confidence
10. R-610 Mature Personality
11. R-611 Conventionality
12. R-612 Theoreticality
13. R-613 Group Centeredness

The first 10 scales were used in the various analyses of this report. Scales 11, 12, and 13 were experimental scales and were not used. The number in the column headed "Scale" corresponds to the scale number in the list above.

3. The "+" or "-" found in the column headed "Scored" indicates how this item was combined with the others in each scale to determine the scale score. When the item is marked "+" it is scored as a +1 when either option A or B is chosen, and 0 when option C, D, or E is chosen. When the item is marked "-" it is scored as a +1 when either option D or E is chosen, and 0 when option A, B, or C is chosen. Items not marked either "+" or "-" are not included in any of the 13 scales.

TABLE G-1

Scoring Pattern for Project TALENT Student Activities Inventory

Item No.	Scale	Scored	Item
1	8	+	I am the leader in my group.
2	9	+	I am confident.
3	6	+	I am never sloppy in my personal appearance.
4	10	+	I make good use of all my time.
5	10	-	I never seem to get things done on time.
6			I talk a lot.
7	11	+	I am a strong believer in customs and traditions.
8	1	-	I like to spend a good deal of time by myself.
9	10	+	I work fast and get a lot done.
10	8	+	I am influential.
11	10	+	When I say I'll do something I get it done.
12	4	+	I can work or play outdoors for hours without getting tired.
13	1	+	I'd rather be with a group of friends than at home by myself.
14	2	-	I like to tease people.
15	7	+	I enjoy beautiful things.
16	12	+	I work better with ideas than things.
17			I believe that most things work out for the best in the end.
18			I get along well with most people.
19	5	-	I often lose my temper.
20	6	+	I have a definite place for all of my things.
21	9	+	I'd enjoy speaking to a club group on a subject I know well.
22	7	+	I feel that good manners are very necessary for everyone.
23	3	+	I like to do things on the spur of the moment.
24	10	+	It bothers me to leave a task half done.
25	13	+	I do what the group decides to do even if I don't particularly like it.
26	8	+	I have held a lot of elected offices.
27	9	-	Being around strangers makes me ill-at-ease.
28	6	+	Before I start a task, I spend some time getting it organized.
29	10	+	I can turn out a lot more work than average.
30	10	+	I am hard-working.
31	1	-	People consider me the quiet type.
32	11	-	People consider me an individualist.
33	1	+	People seem to think I make new friends more quickly than most people do.
34	10	+	People consider me an efficient worker.
35			My teachers say I'm "bossy."
36	10	+	I do my job, even when I don't like it.
37	4	+	I am a fast walker.
38	1	+	I couldn't get along without having people around me most of the time.
39	2	+	I never hurt another person's feelings if I can avoid it.
40	7	+	I think culture is more important than wealth.
41	12	+	Philosophy interests me.
42			I can't find much to be cheerful about these days.
43			I get along very well with my teachers.
44	5	+	I can usually keep my wits about me even in difficult situations.
45	6	+	It bothers me to be with someone who dresses carelessly.
46	9	-	I'm troubled by people making fun of me.
47			I know what is socially proper.
48	3	+	I usually act on the first plan that comes to mind.
49	10		I find it hard to keep working toward long-range goals.
50	13	+	I'd give up my place on a team if that would insure that the team would win.
51	8	+	People naturally follow my lead.
52	9	-	People seem to think my feelings are hurt too easily.
53	6	+	I like to do things systematically.
54	10	+	I am productive.
55	10	+	As soon as I finish one project or assignment, I always have something else I want to begin.
56			I am talkative.
57	11	+	People say I tend to do things in the traditional way.
58	9	+	I am usually at ease.
59	2	+	I seem to know how other people will feel about things.
60			I am a forceful person.
61	10	-	I never volunteer for a tough job.
62	4	+	I am full of pep and energy.
63	1	+	I enjoy getting to know people.
64	2	+	I sympathize with my friends and encourage them when they have problems.
65	7	+	I enjoy cultural things.
66	12	-	I'd rather build things than develop theories.
67			I am an optimist about most things.
68			I like to help people get things done.
69	5	-	People seem to think I get angry easily.
70	6	-	My work suffers from lack of neatness.
71	9	-	People seem to think I am easily discouraged when criticized.

TABLE G-1 (continued)

Item No.	Scale	Scored	Item
72			I know the right thing to wear for social occasions.
73	3	+	I feel that I'm impulsive.
74	10	+	I think that if something is worth starting it's worth finishing.
75	13	+	I enjoy helping my group get ahead.
76	10	+	I do things the best I know how, even if no one checks up on me.
77	4	+	People seem to think I lead a vigorous life.
78	1	+	I like to be with people most of the time.
79	2	+	People consider me a sympathetic listener.
80	7	+	I am a cultured person.
81	12	+	I spend a lot of time thinking.
82			Most of the time I'm in a light-hearted mood.
83			I go out of my way to help my friends.
84	5	+	People seem to think I have good self-control.
85	6	+	People consider me very careful about my personal appearance.
86	9	-	I am often self-conscious.
87	7	+	People seem to think that I have good taste.
88	3	+	People seem to think I sometimes make decisions too quickly.
89	10	-	I lose interest in most projects before I get them done.
90	13	-	If I don't agree with the group's decision, I go my own way.
91	10	+	People seem to think they can count on me.
92	4	+	I am active.
93	1	+	I go out of my way to be with friends.
94	2	+	People consider me very tactful in dealing with other people.
95	7	+	I take part in the cultural activities in my community.
96	12	+	I'd rather read a book than go to a party.
97			I tend to look on the bright side of things.
98			People seem to think I work well with others.
99	5	+	People consider me level-headed.
100	6	+	I am tidy.
101	9	-	People consider me shy.
102			People consider me courteous and polite.
103	3	+	I am impulsive.
104	10	+	People consider me persistent.
105	13	+	I take great pride in the accomplishments of my group.
106	10	+	I am dependable.
107	4	+	I am vigorous.
108	1	-	I prefer reading a good book to going out with friends.
109	2	+	I am sympathetic.
110	7	+	I tend to have good taste.
111	12	+	People say that I tend to be a "thinker" rather than a "doer."
112	1	+	People consider me good-natured.
113			I am cooperative.
114	5	+	I am even-tempered.
115	6	+	I am neat.
116	9	-	I am sensitive.
117	7	+	I am refined.
118	3	-	I don't believe in rushing into things.
119	10	-	People have criticized me for leaving things undone.
120	13	+	I am a team-player.
121	10	+	I am conscientious.
122	4	+	I am energetic.
123	1	+	People consider me sociable.
124	2	+	I am considerate.
125			I get enthusiastic over the things I do.
126	12	+	I tend to be theoretical.
127			I am happy.
128			People consider me helpful.
129	5	+	I am calm.
130	6	+	I am orderly.
131	9	-	I am often worried.
132	7	-	I am sometimes crude.
133	3	-	I am cautious.
134	10	+	I am persistent.
135			I am quiet.
136	10	+	I am reliable.
137	8	+	I like to make decisions.
138	1	+	I am friendly.
139	2	+	People consider me understanding.
140			I get eager and enthusiastic about each new project I start.
141	12	+	I am imaginative.
142			I am cheerful.
143	5	+	I am stable.
144	5	+	I am usually self-controlled.
145	6	-	I tend to be untidy.
146	9	+	People seem to think I usually do a good job on whatever I'm doing.
147	3	+	When I have a problem, I make up my mind and don't worry about it.
148	3	-	It takes me quite a while to come to a decision.
149	10	+	People consider me determined.
150	11	+	Most of my opinions and beliefs are in line with those of everyone else.

APPENDIX H

THE FOLLOW-UP INSTRUMENTS FOR THE STUDENTS WHO WERE SENIORS WHEN TESTED IN 1960

	Page
The Mail Questionnaire	H-2
Interview Schedule for Nonrespondents to the Mail Questionnaire	H-8
Project TALENT News, Volume 1, No. 1, July 1961	H-9

THERE ARE FOUR PARTS TO THIS BOOKLET. IF YOU HAVE NEVER ATTENDED COLLEGE YOU NEED ANSWER ONLY THE FIRST THREE PARTS, PRINTED IN BROWN.

YOU CAN PROBABLY FILL OUT THIS FORM IN ABOUT 15 MINUTES

PLEASE DO NOT WRITE IN THIS AREA.

Today's Date _____
Month Day Year

Date of Birth _____
Month Day Year

Check one:

1 ☐ Male
2 ☐ Female
9

In the spaces below, please print the name and address of someone who is most likely to know your address at any time:

Name _____

Address _____

City _____ State _____

DIRECTIONS:
Please be sure to answer every question below. Most of the questions can be answered by just marking an X in the box to the left of the answer you choose. Do not skip any questions. Mark only one answer to each question except where instructed to mark more than one.

PART I. *EDUCATION*

PLEASE DO NOT WRITE IN THIS AREA.

1. Did you graduate from high school?

1 ☐ Yes
0 ☐ No
9

2. Have you attended college since leaving high school?

1 ☐ Yes, as a full-time student.
2 ☐ Yes, as a part-time student.
3 ☐ Yes, I entered but have dropped out temporarily.
4 ☐ Yes, I entered but dropped out and do not plan to return.
5 ☐ No, but I plan to enter college within a year or two.
6 ☐ No, but I plan to enter college eventually; I have no idea when.
7 ☐ No, and I have no plans to do so.
9

3. Since leaving high school have you attended a school other than a college?

1 ☐ Yes, as a full-time student.
2 ☐ Yes, as a part-time student
3 ☐ No, and I have no plans to do so.
4 ☐ No, but I plan to get some more non-college schooling.
9

PLEASE DO NOT WRITE IN THIS AREA.

4. Which of the following kinds of school diploma or certificate do you plan to obtain? (Mark as many as apply.)

0 ☐ No further schooling planned
1 ☐ A college degree (4 years or more of college)
2 ☐ A junior college diploma or degree
3 ☐ R.N. (Registered Nurse Certificate)
4 ☐ Practical nursing certificate
5 ☐ A business school or secretarial diploma
6 ☐ Diploma or certificate based upon apprentice ship training, on-the-job training, or technical or trade school. Please describe:

_____

(—) 9 ☐ Other. Please specify: _____

_____

0

PLEASE DO NOT WRITE IN THIS AREA.

5. What kinds of school have you attended since leaving high school? (Mark as many as apply.) Please fill in name and location below.

Z ☐ None
AZ ☐ A college offering bachelor's degree or higher
BZ ☐ A junior or community college
C ☐ A technical institute
D ☐ A school of nursing (3-yr. program)
J ☐ A school of practical nursing
K ☐ A business school
L ☐ A trade school
M ☐ An armed forces enlisted school
R ☐ Other (please specify)
Z

_____

Name and location of present or most recent school attended since leaving high school.

School _____

City _____ State _____

PLEASE DO NOT WRITE IN THIS AREA.

6. Answer this question if you have *never* attended college; otherwise omit it.
Did you WANT to go to college?

NO

A ☐ No, I wanted to earn money.
B ☐ No, I wanted to get married.
C ☐ No, I wanted to go into the military service at once.
D ☐ No, I was more interested in going to some other kind of school.
I ☐ No, for some other reason than above. Please specify: _____

_____

YES

J ☐ Yes, but I couldn't afford it.
K ☐ Yes, but I couldn't because of a family emergency.
L ☐ Yes, but I couldn't because I was married.
M ☐ Yes, but I wasn't qualified because I hadn't taken college preparatory courses required for admission.
N ☐ Yes, but I didn't apply because my grades weren't good enough.
O ☐ Yes, I applied but wasn't accepted.
R ☐ Yes, but I didn't go for some other reason. Please specify:

_____
Z

PLEASE DO NOT WRITE IN THIS AREA.

PART II. WORK EXPERIENCE

***
**
****

7. What is your Social Security number?

— — — - — — - — — — —

If none, check here _____

Questions 8-14 refer to the FIRST full-time job you had after leaving high school. Include summer jobs or other temporary jobs you had after leaving high school, if they were full-time.

8. How many different full-time jobs (35 hrs. per week) have you had since you left high school?

0999 ☐ None
1 ☐ One
2 ☐ Two
3 ☐ Three or more
9

If your answer to the above question was "None", please skip to Question 15. Otherwise answer Questions 9-14.

9. How long did it take you to find the first full-time job you had since high school?

0 ☐ I found it before I left high school
1 ☐ Less than a week
2 ☐ 1 to 2 weeks
3 ☐ 2 to 4 weeks
4 ☐ 1 to 2 months
5 ☐ 2 to 4 months
6 ☐ 4 to 6 months
7 ☐ Longer than 6 months

10. When did you start this first full-time job?

0 ☐ Before May 1960
1 ☐ In May or June 1960
2 ☐ In July or August 1960
3 ☐ In September or October 1960
4 ☐ In November or December 1960
5 ☐ In January or February 1961
6 ☐ In March or April 1961
7 ☐ In May or June 1961

11. How did you get your first full-time job?

0 ☐ Through a friend or relative
1 ☐ Through my high school
2 ☐ Through another school
3 ☐ Through a union or bargaining group
4 ☐ Through the U. S. Employment Service
5 ☐ Through another public employment agency
6 ☐ Through a private employment agency
7 ☐ By answering an advertisement
8 ☐ By applying directly to a person or company that might be hiring
(__) ☐ Other. Please specify: _____

_____

12. What was your starting pay (before deductions), on your FIRST full-time job? Fill in ONE of the lines below.

5**** $_____ per week

OR

1**** $_____ per month

00000

PLEASE DO NOT WRITE IN THIS AREA.

13. What was your job called?

_____

14. What did you do on this job? Please be specific:

_____

_____

15. Did you have a paid job in May, 1961?

1 ☐ Yes, a full-time job (35 hours per week or more)
2 ☐ Yes, part-time work (less than 35 hrs. per week)
3 ☐ No, but I was looking for a full-time job.
4 ☐ No, but I was looking for part-time work. (I did not want a full-time job.)
5 ☐ No, I was going to school, and did not want a job.
6 ☐ No, I am a housewife, and was not looking for an outside job.
7 ☐ No. I was not looking for a job for reasons other than those listed above.
9

Answer Questions 16-20 ONLY if you had a full-time job in May, 1961. Otherwise skip to Question 21.

16. What was your pay (before deductions), on this full-time job? Please fill in ONE of the lines below.

5**** $_____ per week

OR

1**** $_____ per month

00000

17. What is the job called?

_____

18. Tell what you do (or did) on this job. Please be specific:

_____

_____

19. How well do (or did) you like this type of work?

3 ☐ Very well
2 ☐ Fairly well
1 ☐ Not very well
0 ☐ Not at all
9

20. How long do you plan to stay in the same type of work?

4 ☐ I plan to make it my career.
3 ☐ At present I have no plans to change.
2 ☐ Probably a few years.
1 ☐ I plan to change soon.
9

21. About how long were you unemployed (and looking for a full-time job) between June 1, 1960 and June 1, 1961?

R ☐ I did not want a full-time job.
A ☐ Not at all
B ☐ Less than a week
C ☐ 1 to 2 weeks
D ☐ 2 to 4 weeks
E ☐ 1 to 2 months
F ☐ 2 to 4 months
G ☐ 4 to 6 months
H ☐ More than 6 months
Z

PLEASE DO NOT WRITE IN THIS AREA.

22. **In regard to jobs or careers, which ONE of the following is most important to you? Please mark only ONE.**

MOST IMPORTANT (Please mark only one.)

A ☐ Starting salary
B ☐ Future salary
C ☐ Working conditions
D ☐ Job security
E ☐ Good supervisors
F ☐ Good fellow-workers
G ☐ Importance of work
H ☐ Opportunity for promotion
I ☐ Good fringe benefits
J ☐ Serving others
K ☐ Personal interest in work
Z

23. **In regard to jobs or careers, which ONE of the following is the NEXT MOST IMPORTANT to you?**

NEXT MOST IMPORTANT (Please mark only one.)

A ☐ Starting salary
B ☐ Future salary
C ☐ Working conditions
D ☐ Job security
E ☐ Good supervisors
F ☐ Good fellow-workers
G ☐ Importance of work
H ☐ Opportunity for promotion
I ☐ Good fringe benefits
J ☐ Serving others
K ☐ Personal interest in work
Z

24. **What occupation do you expect to make your career? Please be specific:**

(——) _____

PART III. *GENERAL QUESTIONS*

25. **What do you wish you had done differently in high school? Mark as many as apply.**

☐① a. I wish I had studied more.
☐② b. I wish I had taken more college preparatory courses.
☐④ c. I wish I had taken more vocational work.

1-(0) ☐ d. I wish I had had more social life.

26. **Are you married?**

11 ☐ Yes, I married while still in high school.
12 ☐ Yes, I married after leaving high school.
0- ☐ No
9-

If not, how soon do you expect to marry?

1 ☐ I plan to marry this year.
2 ☐ I plan to marry next year.
3 ☐ I plan to marry within 3 years.
4 ☐ I plan to marry sometime in the future.
5 ☐ I do not expect to marry.
9

27. **Do you still keep in touch with your high school friends?**

· **YES**
3 ☐ I keep in touch with almost all.
2 ☐ I keep in touch with many of them.
1 ☐ I keep in touch with one or two.
NO
0 ☐ I don't keep in touch with any of them.
9

PLEASE DO NOT WRITE IN THIS AREA.

28. **Where are you living at the present time?**

1 ☐ At home with my parents or guardian.
2 ☐ Some other place.
9

29. **About how much time have you been sick at home or in a hospital during the past year?**

00 ☐ None
01 ☐ Less than a week
02 ☐ 1 to 2 weeks
03 ☐ 3 to 5 weeks
04 ☐ 6 to 12 weeks
05 ☐ 3 to 4 months
06 ☐ 5 to 7 months
07 ☐ 8 to 11 months
08 ☐ The whole year
10

30. **Were you the driver in an automobile accident involving bodily injury or more than $100 property damage since June, 1960?**

1 ☐ Yes
0 ☐ No
9

31. **Of which of the following are you now a member?**

11 ☐ Air Force Reserve
12 ☐ Army Reserve
13 ☐ Naval Reserve
14 ☐ Marine Corps Reserve
15 ☐ Coast Guard Reserve
21 ☐ Air National Guard
22 ☐ Army National Guard
31 ☐ Air ROTC
32 ☐ Army ROTC
33 ☐ Naval ROTC
00 ☐ None of the above
00

32. **Are you now on active duty in the military service?**

11 ☐ Yes, Air Force
12 ☐ Yes, Army
13 ☐ Yes, Navy
14 ☐ Yes, Marine Corps
15 ☐ Yes, Coast Guard
06 ☐ No, but I have been on active duty.
07 ☐ No, but I expect to be drafted.
08 ☐ No, but I expect to enlist voluntarily.
00 ☐ No, and I do not expect to be.
99

33. **Have you a military service serial number?**

0 ☐ No
1 ☐ Yes, the number is _____
9

34. **For how long have you VOLUNTEERED for ACTIVE DUTY in one of the armed services?**

00 ☐ Not at all
01 ☐ 1 to 5 months
02 ☐ 6 months
03 ☐ 1 year
04 ☐ 2 years
05 ☐ 3 years
06 ☐ Minority enlistment
07 ☐ 4 years
08 ☐ 5 years
09 ☐ 6 years
(——) ☐ Other. Please specify: _____
10

PLEASE DO NOT WRITE IN THIS AREA. 5 4 3 2 1 0 9 4 3 2 1 0 9

35. During the past year to what extent has a car been available to you?

- ☐ I had my own car.
- ☐ A car was available whenever I wanted it.
- ☐ A car was available most of the time.
- ☐ A car was available occasionally.
- ☐ I had practically no use of a car.
- ☐ I do not drive.

36. Would you like to serve in the Peace Corps?

- ☐ Yes, for a 4 year period
- ☐ Yes, for a 3 year period
- ☐ Yes, for a 2 year period
- ☐ Yes, for a 1 year period
- ☐ No

37. How have your views and plans changed during the past year? Please write a paragraph on this.

IF YOU HAVE NEVER ATTENDED COLLEGE DO NOT ANSWER THE REST OF THE QUESTIONS. PLEASE TURN IMMEDIATELY TO PAGE 7 WHERE THERE IS A SPACE FOR YOUR COMMENTS AND DIRECTIONS FOR RETURNING THIS BOOKLET.

PART IV. COLLEGE

PLEASE ANSWER THE QUESTIONS IN THIS SECTION IF YOU HAVE ATTENDED OR ARE ATTENDING A COLLEGE.

38. Fill in the name and location of the college or university you are attending or the last one you attended.

College _____

City _____

State _____

PLEASE DO NOT WRITE IN THIS AREA.

39. Approximately how far is the college from your home town?

_____ miles

40. As of June 1961 how many college credits will you have? (Indicate on ONE of the two lines below.)

2** _____ semester-hour credits

3** _____ quarter-hour credits

41. This question consists of the names of various subjects you may have studied in college. What were your grades in these subjects? Indicate as follows (showing your AVERAGE grade if you took more than one course in a subject):

Mark 4 for A
Mark 3 for B
Mark 2 for C
Mark 1 for D
Mark 0 for F
Mark 7 if you passed courses in this subject but specific grades are not reported in the college you attend
Mark 8 if you have taken no courses in this subject

PLEASE DO NOT WRITE IN THIS AREA.

- * _____a. Mathematics
- * _____b. Physical sciences (including astronomy, physics, chemistry, geology, etc.)
- * _____c. Biological sciences (including botany, zoology, physiology, etc.)
- * _____d. Social studies (including history, government, political science, civics, economics, geography, sociology, etc.)
- * _____e. English composition and grammar
- * _____f. English literature
- * _____g. Foreign languages
- * _____h. Fine Arts
- * _____i. Music
- * _____j. Psychology
- * _____k. Philosophy
- * _____l. Religion
- * _____m. Education
- * _____n. Engineering
- * _____o. Business Administration
- * _____p. Home Economics
- * _____q. Agriculture and Forestry
- * _____r. Other courses. Please specify: _____
- * _____s. Average of marks in all courses

9

PLEASE DO NOT WRITE IN THIS AREA.

42. Did you take any college-preparatory mathematics (i.e., algebra, geometry, trigonometry, etc.) in high school?

00 ☐ No
T- ☐ Yes
90

If "yes", how many semesters of it did you complete?

• _____ semesters
0

43. Have you enrolled in any of the following kinds of mathematics courses in college: trigonometry, college algebra, analytic geometry, solid geometry, other college geometry, calculus, or a college mathematics course combining any of the above?

2 ☐ Yes.
1 ☐ No, but I plan to.
0 ☐ No, and I don't expect to take any college mathematics.
9

44. In which of the following areas do you expect to specialize or "major" in college? Mark ONE even if you haven't made up your mind definitely. Please MARK ONLY ONE.

A ☐ Mathematics
B ☐ Physical Sciences
C ☐ Biological Sciences
D ☐ Social Studies
F ☐ English and Literature
G ☐ Foreign Languages
H ☐ Fine Arts
I ☐ Music
J ☐ Psychology
K ☐ Philosophy
L ☐ Religion
M ☐ Education
N ☐ Engineering
O ☐ Business and Commerce
P ☐ Home Economics
Q ☐ Agriculture and Forestry
R ☐ Some other. Please specify:

_____
Z

45. Which of the following degrees do you plan to earn? Mark as many as apply.

00 ☐ None
10 ☐ B.A. or B.S.
20 ☐ M.A. or M.S.
31 ☐ Ph.D.
32 ☐ Ed.D.
41 ☐ LL.B.
42 ☐ M.D.
43 ☐ D.D.S.
99 ☐ Other. Specify: _____
00

PLEASE DO NOT WRITE IN THIS AREA.

46. What is the main reason you went to college?

1 ☐ College graduates make more money.
2 ☐ The career I want to go into requires a college education.
3 ☐ To make good personal contacts for business or an occupation.
4 ☐ Because I enjoy learning.
5 ☐ Because most of my friends do.
6 ☐ For social reasons.
7 ☐ To get into intercollegiate athletics.
8 ☐ Because my parents wanted me to.
0 ☐ No special reason.
(__)9 ☐ Other. Please specify: _____

_____
9

47. Are you still in college?

A ☐ Yes.
- ☐ No. I dropped out.

If you dropped out of college, what was your main reason?

K ☐ I was offered a good job.
L ☐ I became homesick.
M ☐ I didn't enjoy the social life.
N ☐ I got married.
O ☐ College work was boring.
P ☐ I had to work too hard.
R ☐ I was afraid I was going to fail.
S ☐ I failed
T ☐ Financial difficulties.
U ☐ I became ill.
V ☐ Family emergency.
Z ☐ Some other reason. Please specify:

_____
I

PLEASE DO NOT WRITE IN THIS AREA.

48. Where did you live while attending college?.

1 ☐ At home—within an hour's commuting time.
2 ☐ At home—more than an hour's commuting time.
3 ☐ In a college dormitory.
4 ☐ In a fraternity or sorority house.
5 ☐ Away from home in a rented room or apartment.
6 ☐ Away from home with friends or relatives.

8 ☐ Other. Please specify: _____

_____
9

NOTICE

Your answers to these questions will be kept in complete confidence. When the findings are published neither you nor your school will be identified in any way.

For Questions 49 and 50 indicate how much your first year of college cost. Please include the full cost even if you obtained some of your money from scholarships or other sources.

PLEASE DO NOT WRITE IN THIS AREA.

49. For TUITION, FEES, and BOOKS.

01 ☐ Less than $50
02 ☐ $50-$99
03 ☐ $100-$199
04 ☐ $200-$299
05 ☐ $300-$499
06 ☐ $500-$749
07 ☐ $750-$999
08 ☐ $1000-$1499
09 ☐ $1500 or more
10

50. For LIVING EXPENSES only.

01 ☐ Less than $300
02 ☐ $300-$499
03 ☐ $500-$749
04 ☐ $750-$999
05 ☐ $1000-$1499
06 ☐ $1500-$1999
07 ☐ $2000-$2499
08 ☐ $2500-$2999
09 ☐ $3000 or more
10

51. Of the total amount of money you spent to attend college during the period June 1960 through May 1961, about how much came from each of the following sources? Please write in the amount to the nearest $50 in front of each source below:

$_____ ① a. Loans from the National Defense Education Act Loan Fund.
$_____ ② b. Loans from college loan funds.
— $_____ ④ c. Loans from banks or other organizations.
$_____ ① d. Loans from family or friends.
$_____ ② e. Parents, family or sponsors.
— $_____ ④ f. A trust fund.
$_____ ① g. My own savings.
— $_____ ② h. Working while attending college.
$_____ ① i. Scholarships or grants from college attended.
— $_____ ② j. Scholarships or grants from other sources.

52. While you were attending college, did you also hold a job most of the time?

1 ☐ Yes
0 ☐ No
9

53. What are your major plans for the summer of 1961? (Please mark only ONE.)

1 ☐ Work full-time (at least 35 hours a week)
2 ☐ Work part-time (less than 35 hours a week)
3 ☐ Vacation at a summer camp or resort
4 ☐ Travel
5 ☐ Take summer courses
6 ☐ Stay at home
(__)8 ☐ Other. Please specify: _____

_____

9

PLEASE DO NOT WRITE IN THIS AREA.

54. Indicate below how many hours a week, on the average, you spent in each of the following kinds of activities during your first year in college.

hrs.
** _____ per wk. a. Social activities, such as dating, going to parties, etc.
hrs.
** _____ per wk. b. Sports and athletics.
hrs.
** _____ per wk. c. Other extracurricular activities, such as clubs, student government, band, etc.
hrs.
** _____ per wk. d. Studying (outside of class).
hrs.
** _____ per wk. e. Earning money at a job.

55. Have you joined or pledged a social fraternity or sorority?

1 ☐ Yes, I am now an active member.
2 ☐ Yes, I am now a pledge.
3 ☐ Yes, I was pledged but have de-pledged.
4 ☐ Yes, I pledged, but was not elected to active membership.
5 ☐ No, I preferred not to join.
6 ☐ No, there are no fraternities or sororities on campus.
7 ☐ No, pledging occurs later at my college.
0

56. How well do you like college?

3 ☐ Very well
2 ☐ Fairly well
1 ☐ Not very well
0 ☐ Not at all
9

COMMENTS

Your comments and suggestions in connection with any part of this questionnaire are invited. If the space below is not sufficient an additional page may be enclosed with the booklet if desired.

_____

_____

_____

_____

Please sign your name on the line below:

_____

(signature)

PLEASE CORRECT YOUR ADDRESS

Please correct your address, or name if you are now married, as it appears on the address label in the top section of page 8. This is to help us keep our address file up to date.

DIRECTIONS

When you have finished filling out the questions in the booklet, please fold the booklet so that the return address is on the outside and the panel containing your name is on the inside; then wet exposed tab and seal.

Form 1-A1C

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Project TALENT

Interview Schedule for Nonrespondents to the Mail Questionnaire

Current name and address of subject:

Name_____ Testing No._____
Address_____ School Code_____
City and State _____

1. Did you graduate from high school?
   ( ) Yes Date_____
   ( ) No

2. Have you gone to any school since you left high school?
   ( ) Yes Name_____ Studying what?_____
   Kind of School_____
   ( ) No

3. When did you enter this school? Date _____

4. Are you still attending?
   ( ) Yes
   ( ) No Reason_____

5. Are you married?
   ( ) Yes ( ) No

6. Are you or have you been in the military service?
   ( ) Yes Specify type_____ How long?_____
   ( ) No

7. Have you had a full-time job?
   ( ) Yes What was (or is) it called?_____
   ( ) No

8. What occupation do you expect to make your career?
   _____

9. Did you ever receive a questionnaire through the mail from Project TALENT?
   ( ) Yes
   ( ) No ( ) Received any other materials?
   ( ) Not sure _____

   (If yes to question 9, and you are contacting this student at a different address from the one supplied on your list, ask:)

9a. How did you get it?
   ( ) Forwarded by parents ( ) Forwarded by post office
   ( ) Other. Specify:_____

10. (For interviewer only.) Try to find out what S has been doing since June 1961, if this is not clear from the above answers.

    Interviewer's comments:

Interviewee: Interviewer:_____
( ) Nonrespondent
( ) Other. Specify:_____

Project TALENT News

Volume 1, No. 1 • July 1961 University of Pittsburgh, Pittsburgh 13, Pennsylvania

440,000 Participate in Nationwide Project

This first issue of the Project TALENT News is being circulated to bring you up to date on what's been happening in the nation's first large-scale, long-range educational research study.

More than 440,000 of you will recall participating in this project in the spring of 1960. At that time you took a two-day comprehensive battery of tests, answering more than 2000 questions and items of information.

There has been a great deal of interest in this project. Educators, parents, and students alike ask:

Why was this census taken?

What are the objectives of Project TALENT?

What do the test scores mean?

Project TALENT Is A Census Of U. S. Youth's Abilities

When the government took the census in 1960 it counted the number of people in the nation. The purpose of this type of census is to determine the growth changes of the population.

Project TALENT initiated a new type of census. It was also taken in 1960, to determine the aptitudes and abilities of the nation's youth.

This new type of census was necessary in order to plan for the changes expected from the development of new industries, the use of atomic energy, and the nation's general growth and development.

How many educators, physicians, technicians, and other specialists will be ready to take their places in business, government, industry, and the professions in the next ten years? Can we as a nation provide the educational facilities needed to train them? Will they be given the kind of encouragement they need to realize their full potential?

These are the types of questions to be answered by the project.

What Will You Be Doing in 1980?

You were a student in school in 1960 — you took the Project TALENT tests in a national survey. Where will you be, and what will you be doing in 1980?

Project TALENT is planning a series of follow-up studies on you and all of the others who took part in the testing program. This year the members of the senior class of 1960 received the first one-year follow-up questionnaires. Just one year ago they took the tests and they are now beginning to add to their personal data bank on the Project TALENT files.

Class of '60 — Notice!

Your first Follow-Up Questionnaire was mailed to the address you gave us when you were in high school. We hope you have already returned it and that you indicated any change of address.

If you have not yet mailed your questionnaire to us, please be sure to do so today.

If you have moved since you sent us your follow-up questionnaire, please use the form on the back of this copy of the Project TALENT News to give us information about your new address — or any change of name.

"Quiet, Please"—Testing In Progress!

(*Milwaukee Journal Photo*)

HUNDREDS OF THOUSANDS TOOK THESE TESTS—This scene in a Milwaukee high school was duplicated over the country as students took the two-day Test Series.

Project TALENT'S Goal: To Improve the Use Of Everyone's Talents

For the first time in the nation's history an effort will be made to determine all of the talents available to meet the challenge of the future. Project TALENT has set as its first goal a CENSUS OF HUMAN TALENTS.

You helped to provide the information for this new and important census through the billion bits of information which were collected from you and the rest of the 440,000 students in 1,353 secondary schools in all parts of the country.

This vast bank of information has already passed through its first processing stage. The tests have been scored, and the scores have been sent to the schools. The information will be carefully analyzed, recorded on magnetic tapes and stored for future use. This data bank will help to provide key answers to some of the nation's most important educational problems, as well as problems concerning the future manpower and human talents of this country.

Project TALENT hopes to find ways to improve guidance procedures. The findings from this study will help to provide the young people of the nation with the type of information and counseling which will enable them to make the right choices of college, advanced training, and careers.

Improved educational methods should result from the mass of data gathered through questionnaires returned by the participating school principals and administrators about the 1,353 secondary schools in this study. This information will provide the basis for increasing the effectiveness and quality of educational procedures in the future.

Through Project TALENT we hope to gain a better understanding of the factors which influence young people in their career choices. Many of the students who participated in Project TALENT have already entered colleges and other advanced training programs. Others have gone out to take jobs.

What were the factors which influenced their decisions? Did they take their parents' advice? Did they make a decision based on what they read about the work they would be doing? Did they follow the advice of a counselor? Studying your follow-up questionnaire responses will help us answer these questions.

Scores on Project TALENT Tests Have Been Sent to the Participating Schools

Recently, rosters of the scores made by all students on the Project TALENT tests were mailed out to the schools in which the tests were taken. A total of 37 test scores was reported for each student.

Information about your test scores may be obtained from the principal of the school where you took the tests. Because of commitments made to the schools at the time the tests were given, all inquiries about test results are being referred to the principals of the participating schools.

The 7070 Computer Speeds Up the Analysis of Data

One of the modern wonders which has made Project TALENT possible is the new IBM 7070 computer at the University of Pittsburgh Computation and Data Processing Center in the Cathedral of Learning. This computer is being used to process the data (see picture on page 2.)

The 7070 computer is really a whole roomful of complex electronic gadgetry. It is a sensitive machine, requiring an air-conditioned, humidity-controlled room and highly skilled people to tend to its various needs. It is a workhorse, however, running 24 hours a day, day in and day out, and turning out in hours calculations which would take years to do by hand.

After TALENT members took their tests last year, their answer sheets were sent to the Measurement Research Center in Iowa City. There special machines scored the two million plus answer sheets and placed the information on about five million punched cards. These cards were then sent to the University of Pittsburgh where the 7070 was used to match all the cards for each student, identify and organize incomplete cases, and place all of the information for each student and his school on magnetic tape (much like that used in "hi-fi" tape recorders). All of the 11 cards of information for a single student takes less than two inches of this tape! Even so, it took about seven miles of tape to record all of the information for all the Project TALENT members.

Now the 7070 can do many different kinds of things with the information on this tape. For example, it produced a new tape which controlled the machine which printed your name and address on the label of this newspaper. It can perform huge calculations and analyses relating all kinds of information about various groups of TALENT members at super-human speeds.

But even the 7070 cannot discover relationships if it does not have the data. This is why the follow-up questionnaires are so important. The computer will be asked how your test scores and other information relate to what happens to you in the future. Without your follow-up questionnaire, which tells what happened to you, it will only be able to shrug its electronic shoulders and sadly say, "I don't know."

In addition to handling all of the follow-up information that you will supply over the next few years, the 7070 computer will also be asked to keep your address up to date.

PROJECT TALENT FOLLOW-UP QUESTIONNAIRE TIMETABLE

Your Grade in 1960	1 year Follow-up	5 year Follow-up	10 year Follow-up	20 year Follow-up
12th	1961	1965	1970	1980
11th	1962	1966	1971	1981
10th	1963	1967	1972	1982
9th	1964	1968	1973	1983

This table indicates when you can expect to receive your follow-up questionnaires. You will receive your PROJECT TALENT NEWS at least once a year if you keep your address current with us.

The Information Test Included Knowledge Acquired In And Out Of School

The Information Test contained questions about types of knowledge acquired both in and out of school. This type of test is often used as an indication of a person's ability to learn. It may also indicate the extent of a person's interest in specific activities.

For academic areas, the test measures information which has been acquired both in and out of school through independent reading, radio, TV, etc.

For non-academic areas, the questions give an advantage to the student who has actually participated in an activity as a hobby, extra-curricular activity, or part-time job. He may also have acquired the information by being especially observant, or by having taken special training in a particular field.

There are 11 sub-tests in the Information Test.

Including The Total, There Were 12 Scores Reported For The Information Test

Good scores on the various information tests indicate knowledge and to some extent interest in the fields included in the test.

102-VOCABULARY: An indication of the relative size of a student's general vocabulary.

103-LITERATURE: Familiarity with the world of literature. Prose and poetry were included in this test, you will recall.

104-MUSIC: Not a measure of musical talent or ability but an indication of knowledge about music.

105-SOCIAL STUDIES: Facts and concepts from the fields of history, economics, government and civics, geography, current affairs, etc.

106-MATHEMATICS: Items concerned with definitions, the vocabulary, notations and other kinds of factual information about mathematics, rather than with the actual computation or problems.

107-PHYSICAL SCIENCES: Chemistry, physics, astronomy, and other physical sciences. Some of the questions relate to information which might have been acquired from general reading out of school.

108-BIOLOGICAL SCIENCES: Botany, zoology and microbiology as well as a few items about nature lore.

110-AERONAUTICS AND SPACE: Topics such as pilot procedures, navigation, jet planes, and space exploration were included in this short sample of aeronautics and space information.

111-ELECTRICITY AND ELECTRONICS: The type of information one acquires in constructing electrical equipment or devices including hi-fi, radios, and other electronic equipment.

112-MECHANICS: Knowledge of automobiles, tools and mechanical activities.

114-HOME ECONOMICS: The kinds of information one acquires about sewing, cooking and home-making.

190-INFORMATION TEST TOTAL: The total score on the subtests that have gone before and other miscellaneous items. This may be regarded as a good indication of general ability to learn. It also indicates breadth of general information.

Language Aptitude And Ability Tests Measured A Variety Of Language Skills

The language tests included items which measured ability to learn the vocabulary of a foreign language as well as knowledge of grammatical structure of sentences. This group of tests also includes items on knowledge of the English language.

The language tests include:

211-MEMORY FOR SENTENCES: The ability to memorize simple descriptive statements and to provide the missing word when the sentence is repeated some time later.

212-MEMORY FOR WORDS: A measure of another kind of rote memory—the ability to memorize foreign words which correspond to common English words.

220-DISGUISED WORDS: A test including words which are distorted or strange, which contain only a suggestion of the English word they are intended to represent. This ability is useful in learning a foreign language vocabulary.

The language tests also included a series of tests of knowledge of English. These consisted of:

231 - SPELLING; 232 - CAPITALIZATION; 233-PUNCTUATION; 234-ENGLISH USAGE; and 235-EFFECTIVE EXPRESSION. All were very small samples in these areas.

230-ENGLISH TOTAL: This is the sum of the five subscores above. It indicates over-all achievement in those aspects of English expression which can be measured by objective test items.

240 - WORD FUNCTIONS IN SENTENCES: A measure of the student's sensitivity to grammatical structure. To score well one must understand the fundamentals of sentence structure.

250-READING COMPREHENSION: The ability to comprehend written materials rather than mere ability to recognize the printed word without understanding the fact, idea, or concept that the writer is attempting to convey.

High scores in the language and English tests could be considered indicative of aptitude for college work, and possibly aptitude for careers in the fields of teaching, writing, journalism, interpreting and other occupations requiring the use of foreign languages, and of course, secretarial work.

There Were Five Tests Measuring Complex Intellectual Aptitudes

These five tests measure a variety of complex intellectual aptitudes including:

260-CREATIVITY: The ability to find ingenious solutions to a variety of practical problems. This is sometimes indicative of inventiveness or creative ability.

270-MECHANICAL REASONING: Ability to understand and visualize effects of the operation of everyday physical forces and principles such as gravitation, pressure, equilibrium, and basic mechanisms such as gears, pulleys, wheels, springs and levers.

281 and 282-VISUALIZATION IN TWO AND THREE DIMENSIONS: The ability to visualize manipulation of figures in two and three dimensional space.

290-ABSTRACT REASONING: A test of reasoning ability and potential for handling abstract concepts. The test measures ability to determine logical relationships among elements of patterns where one element is missing and must be supplied to complete the pattern.

Students whose scores are high in these areas should have the ability to do well in careers in engineering and the sciences. Those who score well on the visualization tests should do well in careers involving aeronautics, electronics, and electrical engineering. Those who do well in creativity might do well in careers requiring originality and imagination.

This Computer Knows the Scores

A "7070" HELPS ANALYZE DATA—In "The Cathedral of Learning", at the University of Pittsburgh under the supervision of the Director of Project TALENT, Dr. John C. Flanagan, an IBM 7070 Computer, one of the most complicated electronic machines available, is now being used to work with the millions of items of information produced by the largest single testing project in history.

Elementary And Secondary School Mathematics Are Covered In A Series Of Six Tests

The Project TALENT tests included several mathematics tests measuring ability to do mathematical and arithmetic problems at various levels. These included:

311-MATHEMATICS, Part I (Arithmetic Reasoning): Ability to do reasoning required to solve arithmetic problems.

312-MATHEMATICS, Part II (Introductory): Achievement in other kinds of mathematics of the type generally taught up to and including the ninth grade. Problems involving elementary algebra, fractions, decimals, per cents, square roots, intuitive geometry and elementary measurement are included in this test.

320-MATHEMATICS I + II: The sum of the scores on Parts I and II.

333 - MATHEMATICS, Part III (Advanced): Mathematics usually taught in grades 10 through 12 in college preparatory courses. This test includes plane geometry, solid geometry, algebra, trigonometry, elements of analytic geometry, and introductory calculus. This is a very short sample of items in these areas.

340-MATHEMATICS TOTAL (I + II + III): Total of scores in mathematics tests.

410 - ARITHMETIC COMPUTATION: Measure of speed and accuracy in doing computations including basic addition, subtraction, multiplication and division.

Those who are able to score high on the mathematics tests might do well in college courses in accounting, engineering, and science.

Clerical And Perceptual Aptitudes Are Included In Three Tests

420-TABLE READING: Speed and accuracy in non-computational tasks involving information taken from a table.

430-CLERICAL CHECKING: Speed and accuracy of perception in very simple clerical tasks involving comparing lists of names for identical pairs, etc.

440-OBJECT INSPECTION: A measure of speed and accuracy in perception of form. The ability to see quickly small differences in pictured objects.

Ability to do well on these three tests suggests aptitude for secretarial, clerical, or inspection activities.

Three Questionnaires Were Also Given

The students completed a number of questionnaires including self-description items and questions concerning the extent of their participation in and liking for various types of activities. Socio-economic status questions asked involved general financial status of family, father's profession or job, etc. These questions were intended to provide data essential to an analysis of college plans, needs for financial assistance to continue educational plans, requirements to go to work immediately following high school graduation, etc.

The following is a description of some of the questionnaires used in Project TALENT:

Student Information Blank — used to obtain data on students' background and plans including: hobbies, organizational and club memberships, dating, work experiences, plans for college, military service, marriage, and careers.

Interest Inventory — intended to measure interests in various areas of occupations and activities, particularly how these will relate to entering college, choice of curriculum, satisfaction with college courses, vocation entered, and utlimate satisfaction in these careers.

Student Activities Inventory — information about the student's "traits" in terms of the kind of activities in which he participates. This was a self-description form including activities, behaviors, and general attitudes, which will be compared to later behavior and success.

The Project TALENT News
Volume 1, No. 1 July, 1961

Published by Project TALENT, University of Pittsburgh. The purpose of this publication is to supply information to the students who participated in the Project TALENT Tests in the spring of 1960. The Staff of Project TALENT is as follows:

John C. Flanagan . . . Responsible Investigator
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Marion F. Shaycoft . . . Supervisor for Measurement Studies
William A. Gorham . . . Supervisor for Special Studies
David B. Orr . . . Supervisor for School Characteristics Studies
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Glenn E. Roudebush . . . Computer Programmer
Gary Lotto . . . . . Computer Consultant
Michael Amrine . . . Public Information Consultant

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Robert . . . A Human Being In Our Statistics

Here's A Close Look At A TALENT Student

ROBERT is a particularly interesting member of the Project TALENT population. Let us take a look at his scores and some of the things he told us on the questionnaires in 1960.

Robert is 16 years old and a junior in high school. He has been delivering newspapers since he was nine to make some extra spending money. He gets up at 5:00 in the morning to deliver his papers. He also does odd jobs for people after school about 16 to 20 hours each week. Robert is a member of a large family; so he also helps at home. He shares the housework with his younger brother and two sisters.

What does a boy like Robert do about studying? We asked this question and found that he spends only about one to four hours a week on homework. What effect does this have on his grades at school? We learned that his grades have been mostly C's and D's in mathematics, but that he does fairly well in the other subjects, in which his grades are B's and C's.

One of his main interests is football and he is a member of the varsity squad. He is also captain of the basketball team, so this means that he spends about 12 hours each week on athletics. During the summers Robert indicated he likes to swim, explore, and work with a military drill group.

Robert's father had one year of college. His mother only went to grade school. We asked if Robert had an interest in attending college. He indicated he would like to go to a college since he was particularly interested in a career in electronics and space research.

However, a look at Robert's profile of scores and at his high school record to date suggests that he would have difficulty in getting into most colleges.

A Look At Robert's Scores

Let's take a closer look at the scores Robert made on the Project TALENT tests as indicated on his profile and compare some of his test scores and his answers to some of the questionnaires.

Robert said he would be willing to borrow money to go to college, and if he is able to do so he would like to major in the physical sciences, so that he could work on developing space ships. This interest is reflected in his perfect score on the Aeronautics and Space Information Test and in the fact that he excelled 93 per cent of the eleventh graders in his score on the Physical Sciences Test. He probably got some of this information in outside reading since he says he enjoys reading science fiction.

In Mathematics and Mechanical Information his scores were above those of 90 and 92 per cent of all those in his class. His score on the total Information Test was outstanding, above 95 per cent of those made by all other students at this level. From this information and his score, at 94th percentile in Reading Comprehension and the 93rd percentile in Creativity, it would appear that Robert has considerable aptitude in the general field of physical sciences.

His Mathematics Test scores were only at the 83rd percentile, however. This would suggest he might have some difficulty with college mathematics if the college he attended had high scholastic standards.

It was interesting that Robert's total score on the English test was only at the 45th percentile. This indicates a relative deficiency in this area which is also important for college work.

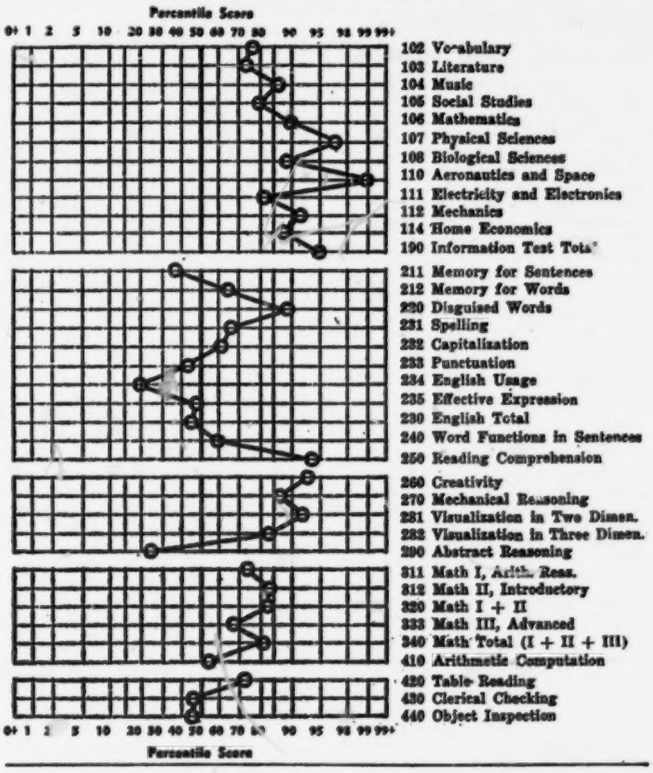
If a student like Robert is serious about entering college he will have to spend more time on his studies and try to do better on his grades during his senior year. He should be able to do better work in English and bring up some of his other grades during that time.

Will Robert Succeed?

The outstanding scores which Robert made on the Information Tests in the Project TALENT battery provide a very good indication that Robert learns a lot from his outside reading and activities which provide him with a good source of knowledge which cannot always be acquired in school. As a matter of fact, he appears to have a very good foundation in the kinds of information acquired out of school.

It will be interesting to follow Robert as he moves along to find out whether he actually does go to college. If he enters college, will he succeed in keeping up his grades so that he will be able to complete his course work in the field in which he is interested? Will he actually enter the field of science which he indicated as his first choice, or will he eventually make another choice of a career?

Robert's Profile Chart


Percentile Score
0+ 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99+
102 Vocabulary
103 Literature
104 Music
105 Social Studies
106 Mathematics
107 Physical Sciences
108 Biological Sciences
110 Aeronautics and Space
111 Electricity and Electronics
112 Mechanics
114 Home Economics
190 Information Test Total
211 Memory for Sentences
212 Memory for Words
220 Disguised Words
231 Spelling
232 Capitalization
233 Punctuation
234 English Usage
235 Effective Expression
230 English Total
240 Word Functions in Sentences
250 Reading Comprehension
260 Creativity
270 Mechanical Reasoning
281 Visualization in Two Dimen.
282 Visualization in Three Dimen.
290 Abstract Reasoning
311 Math I, Arith. Reas.
312 Math II, Introductory
320 Math I + II
333 Math III, Advanced
340 Math Total (I + II + III)
410 Arithmetic Computation
420 Table Reading
430 Clerical Checking
440 Object Inspection
0+ 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99+
Percentile Score

A Word Of Caution

Guidance or counseling of students or graduates is not a purpose of Project TALENT, although the schools concerned may use the individual students' scores for such purposes.

The story of Robert is given here to illustrate the kinds of information which the test batteries have furnished about all these students. The future follow-up studies will enable us to know more about what happens to Robert later on.

Some of the tests and subtests used in the Project TALENT Test Battery were short. And therefore the marks should be used only in connection with other indicators of similar aptitudes and abilities.

So far as TALENT is concerned, the main point is that the stories of all the Roberts and Bills and Anns and Marys of Project TALENT will be followed for a few years. Then the educational planners of the future will have the answers to many questions about the relationship between what Robert now knows and what he achieves in later life.

Project TALENT cannot send its scores to any individual student, and in fact the names of students are never given out, (except with the scores sent back to the participating schools). But by studying thousands of these case records, the researchers of the future will be able to answer all the questions raised here in this story about Robert.

Project TALENT cannot answer individual questions about an individual student. But tomorrow teachers and parents and counselors should be better able to answer such questions for other "Roberts," "Bills," "Anns," and "Marys."

NOTICE

Instructions For Reporting Change Of Address

Please check the address on the label of this newspaper. Is it correct?

If not, please use the section at the right for making necessary changes.

If you will be moving frequently, please give us an address of your parents or someone who will always know where to reach you. In this way we can send your mail to what we term a "permanent" address and it can be forwarded to you from time to time as necessary.

Did You Change Your Name?

It's June again . . . and we know that many of the Project TALENT girls will be getting married. Please be sure to tell us your new name. When you do this, indicate your maiden name *and* your married name as well as your identification number.

For business purposes many men also change their names. If you plan to do this or have already done so and your new name is different from the one you used on your Project TALENT test booklets, please give us your name as you used it last spring *and* your new name so that we can make the appropriate change and begin to use your new name for your mail.

Cut along dotted line, fold in middle with Return Address out and staple where indicated.

Cut along dotted line

CHANGE OF NAME OR ADDRESS

Date: .....

I have moved or changed my name as follows:

(Last name) (First name) (Middle name)

(Street address)

(City) (Zone) (State)

My name was: .....

I was in the ..... th grade in 1960 at ..... school

in ..... when I took the

(City) (State)

Project TALENT Tests.

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Pittsburgh 13, Pennsylvania

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How Will This Project Follow All Students To Study Their Success?

If you think this will be a huge job, you're absolutely right. It will be a tremendous job to keep in touch with all of the Project TALENT students as the years go by. For this reason we are appealing to all of you to keep us informed every time you change your address. If you have someone who will always have your forwarding address and for some reason you will be changing your address frequently, then a forwarding address will do

The change of address section is so arranged that when you cut it out and fold it as directed, you will automatically return to the Project Office your name as we have it on file, your TALENT testing number, and the code of the school where you were tested. We need these pieces of information to identify you properly.

Then, if you should ever have reason for writing to us, please .efer to your Project TALENT membership card, as illustrated elsewhere on this page, and tell us what the six-digit number is that is printed on it. We, in turn, will do our best to keep our address lists up to date, and we will be sending you the PROJECT TALENT NEWS and follow-up questionnaires from time to time.

Thousands of letters have already been received reporting changes of address.

For your convenience in reporting a change of your address, a postage-paid change of address section is printed below. If you have moved or if the address on the label is not correct, then please fill in the data asked for on the form, then clip it out along the dotted line, fold it so that the return address section is on the outside, seal it closed with a piece of gummed tape or a couple of staples and put in the mail. If you have not moved, then we suggest that you clip out the section and save it for reporting your change of address when you need it.

Wedding Bells Ring Out For TALENT Students Nos. 417882 and 417964

Project TALENT concerns human beings —not merely statistics—and in such a large enterprise many human interest stories come to light.

Already the Project has heard of many persons in TALENT who have changed their addresses. Some have married—so they send us marriage announcements and the news that there is now a new address for two people

A National Census Of Talent

1353 SCHOOLS . . . About a half million persons are directly related to Project TALENT, if one includes 440,000 students, 18,000 teachers, 1,400 school principals, 750 superintendents, 5,000 school-board members, 90 Regional Coordinators, and scores of consultants and members of advisory committees. The Project staff has seven research persons working full-time, analyzing the data and preparing follow-up studies.

Project TALENT Follow-up Questionnaire

The Project TALENT Staff has been thinking of the follow-up questionnaire to be sent to the 90,000 students of the "Class of 1960," ever since the Project TALENT tests were given. The final form of the first follow-up questionnaire was mailed to the students in the first part of June. It is hoped that there will be a record number of returns to this questionnaire.

It consists of four sections. Part I has six questions on education which are applicable to everyone. Part II asks about work experience and contains eighteen questions. Perhaps the most important question in this group is the last one, which asks: "What occupation do you expect to make your career?" Part III consists of thirteen questions of a general nature on various subjects. As the last question in this section, the 1960 seniors are asked to write a short paragraph on how their views and plans have changed during the past year since they got out of high school. Part IV, which is to be answered by those seniors who have gone to college, consists of nineteen additional questions on various aspects of the college life and plans. Following this group of questions is a place for the respondent to make any comments that he desires, about the questionnaire or the answers.

The questionnaire has been designed so that to return it to the Project TALENT Office it is only necessary to refold the booklet so that the return address is on the outside and then seal the gummed label. The questionnaire can then be dropped in the mail box, as there will already be a stamp on it.

The Project TALENT Staff requests that any Project TALENT member knowing of any member of the "Class of 1960" who has not received a follow-up questionnaire, ask that person to notify the Project TALENT Office. He should send in his full name, his six-digit Project TALENT testing number from his membership card, and the name of the school where he took the test. A questionnaire then will be sent to him.

TALENT Card Returns Wallet

In New York City a young man lost his wallet in a movie theater, and the manager sent the wallet to TALENT, because the TALENT number and card were the only identifying items in the wallet. Through our records we were able to send the wallet back to the young man.

What Does Research Expect To Find Out?

We will have a much clearer picture of the way in which young people move toward their goals. During the next twenty years we can determine how many of you actually do go on to achieve the goals you set while you were still students in high school. You may achieve even higher goals.

Most important, the information from these follow-up studies can be used to guide other young people so that they will benefit from the experiences of the thousands who participated in Project TALENT.

Only in this way can we hope to improve our ability to help future students to choose the right jobs and educational programs so that they can become happier and more successful Americans.

Follow-Up Studies Will Benefit Future Teenagers

You can help future teenagers develop their potential by completing questionnaires that will be sent to you from time to time. These questionnaires will ask about your work experiences and educational programs after high school. We will gain valuable information for guiding future teenagers. We will see what test scores and experiences in high school relate to work and educational experiences after high school.

Those of you who were seniors in 1960 were sent questionnaires in June. Please fill in the questionnaire and return it to the Project TALENT Office. Don't forget the teenager you help may be your own son or daughter.

Every member of the Project TALENT will receive a follow-up questionnaire one year after his class leaves high school. Later on, questionnaires will be sent to you five, ten, and perhaps twenty years after you leave high school to find out how you are getting along. (See the Timetable on page 1.)

If we know what has happened to you, improvement can be made to help others. Even though you didn't complete high school, or weren't able to find the work you liked, or weren't satisfied with the college you entered, it is important that you tell us about yourself. The information could help someone else to make a better start.

The one year follow-up questionnaire asks about your work experiences, college, military service, and marriage. When you get yours, fill it out right away; it takes only 15 or 20 minutes to complete. Answer only the sections which apply to you. For example, if you did not go to college you will not be asked to answer the questions intended for college students. Be sure to mail your questionnaire in promptly.

High School Papers Wrote Many Stories

Many schools have told us of their uses of the scores and of students who have been helped already because their high scores persuaded them to work harder towards a specific career. High school newspapers throughout the country wrote reams of stories. Some of them made amusing comments about "blood-shot eyes," or about "the test to end tests"—and many called it "the most."

Attendance Went Up On Testing Days

In school after school, attendance records were higher on TALENT days than on ordinary days. It has always been a popular theory that there is more "illness" on testing days, but in the case of TALENT this did not prove true. In one school, the attendance was the highest in three months.

PROJECT TALENT is an important national study which operates with the financial support of the United States Office of Education.

The purposes of PROJECT TALENT include:

1. A scientifically planned inventory of all the talents of high school students.
2. Determination of the specific patterns of aptitudes, abilities, and interests which provide the best basis for various college courses and careers.
3. A better understanding of how young people choose their life work.
4. A better understanding of the educational experiences that prepare students for their life work.

Professor John C. Flanagan
Project TALENT Office
University of Pittsburgh
Pittsburgh 13, Pennsylvania

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A P P E N D I X I

DISTRIBUTION OF PRESENT FULL-TIME OCCUPATIONS OF RESPONDENTS TO THE FIRST GRADE-12 FOLLOW-UP QUESTIONNAIRE

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NOTES TO APPENDIX I

1. The table that follows shows for each job code the unweighted and weighted distributions of responses of respondents who were seniors in high school in 1960 to Item 17 of the first follow-up questionnaire sent to them in 1961, one year after their class had graduated from high school. The questionnaire asked only those who had a full-time job in May, 1960 to answer this section of the questionnaire. Item 17 read as follows:

17. What is the job called?

_____

To assist in interpreting the response the next question asked:

18. Tell what you do (or did) on this job. Please be specific:

_____

_____

2. The responses have been tabulated from the approximately 70 per cent of the senior class who responded and for whom there were data on the master tape. This group was further divided by sex and listed both unweighted and weighted. The weights correct for over- and under-representation of certain types of schools in the TALENT sample. The weighted and unweighted N's for each sex were as follows:

	Unweighted	Weighted
Males	18,262	380,525
Females	21,408	441,572

3. The construction of this job code follows in general the same rules used in most other codes. Each successive integer from the left to the right represents successive subdivisions of the code.

4. The accompanying table includes 325 entries for males and 248 entries for females.

TABLE I-1

Responses of High-School Seniors One Year After Graduation From High School (1960) to Follow-Up Questionnaire Item 17 Concerning Their Present Full-Time Job

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
00. No full-time job	11,574	14,512	239,476	280,380
01-09. General Category				
Note: Use these codes only if nothing more specific is indicated or inferable.				
01. Classified according to locus	6	2	114	41
011. Civil Service	2	0	41	0
012. Work for government (Civil Service not indicated)	2	2	39	41
013. Industry	0	0	0	0
014. Business	2	0	34	0
02. Classified according to "level"	18	4	379	86
021. Proprietor; in business for self; contractor	3	3	46	65
022. Executive	0	0	0	0
023. Foreman	15	1	333	21
03. Classified according to activity	8	3	167	68
031. Research	2	0	41	0
032. Work with people	0	2	0	45
0321. Work with children	0	2	0	45
0322. Work with adolescents	0	0	0	0
0323. Work with adults	0	0	0	0
0324. Work with old people	0	0	0	0
039. "Classified" work, top secret work, etc.	6	1	126	23
0390. "Classified" work, top secret work, etc.	3	0	63	0
0391. For government	3	1	63	23
0392. For private industry	0	0	0	0
04. Classified according to kind of business	3	4	58	83
041. Retail	2	1	46	23
042. Wholesale	0	0	0	0
043. Manufacturing	0	0	0	0
049. Other	1	3	12	60
0491. Insurance (NEC) (also see 4384)	1	3	12	60
0492. Real estate (NEC)(also see 4383)	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
09. Other vague designations	1	0	23	0
091. Humanitarian, philanthropist, patron of the arts, etc.	0	0	0	0
099. Other	1	0	23	0
11. Math and allied fields	6	0	119	0
111. Mathematician or mathematical statistician	2	0	46	0
1110. Mathematician or mathematical statistician	1	0	21	0
1111. Mathematician	1	0	25	0
1112. Mathematical statistician	0	0	0	0
112. Statistician (NEC)	1	0	21	0
113. Electronic computer specialist	3	0	52	0
1131. Systems analyst	0	0	0	0
1132. Computer programmer (unless just coding)	3	0	52	0
12. Physical sciences (pure and applied)	180	19	3,515	378
121. Physical scientist	1	1	22	23
1211. Chemist	0	1	0	23
1212. Physicist	0	0	0	0
1213. Astronomer	1	0	22	0
1214. Geologist	0	0	0	0
1215. Meteorologist	0	0	0	0
1219. Other physical scientist (NEC)	0	0	0	0
122. Engineer	23	1	452	33
1220. Engineer	11	1	219	33
1221. Civil and hydraulic	6	0	109	0
1222. Electrical, electronic	2	0	39	0
1223. Mechanical, automotive	1	0	20	0
1224. Aeronautical	0	0	0	0
1225. Chemical	1	0	20	0
1226. Mining, petroleum	0	0	0	0
1227. Metallurgical	0	0	0	0
1229. Other engineer	2	0	45	0
123. Architect	2	0	42	0
127. Automation (NEC)	0	0	0	0
128. Lab technician (physical sciences)	32	7	651	137
1280. Lab technician (physical sciences)	8	3	148	62
1281. Chemistry	13	3	275	62
1282. Physics	6	0	117	0
1287. Research technician	0	0	0	0
1289. Other	5	1	111	13

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
129. Support occupations	122	10	2,348	185
1290. Support occupations	3	0	55	0
1291. Draftsman, mechanical drawing	76	10	1,440	185
1292. Surveyor	42	0	831	0
1299. Other	1	0	22	0
13. Biological sciences, clinical sciences, etc.	2	2	46	42
131. Biologist (NEC)	0	0	0	0
1311. Zoologist (NEC)	0	0	0	0
1312. Botanist (NEC)	0	0	0	0
132. Specialists in agricultural science	0	0	0	0
133. Specialists in fish, wildlife, and forestry science; conservation	2	0	46	0
134. Clinical sciences (non-MD's only)	0	2	0	42
1341. Anatomy (human)	0	0	0	0
1342. Physiology (human)	0	0	0	0
1343. Microbiology (includes bacteriology, virology, immunology)	0	1	0	23
1344. Biochemistry	0	0	0	0
1349. Other	0	1	0	19
14. M.D.	0	0	0	0
1401. General practitioner	0	0	0	0
1402. Pediatrician (children's doctor)	0	0	0	0
1403. Gerontologist, geriatrician	0	0	0	0
1404. Internist	0	0	0	0
1405. Surgeon	0	0	0	0
1406. Pathologist	0	0	0	0
1407. Radiologist, roentgenologist (X-ray specialist)	0	0	0	0
1408. Preventive medicine	0	0	0	0
1409. Public health	0	0	0	0
1411. Obstetrician, gynecologist	0	0	0	0
1412. Ophthalmologist, oculist (eye)	0	0	0	0
1413. Otolaryngologist (ear-nose-throat)	0	0	0	0
1414. Dermatologist (skin)	0	0	0	0
1415. Neurologist	0	0	0	0
1416. Anesthesiologist	0	0	0	0
1491. Psychiatrist	0	0	0	0
1499. Other specialist	0	0	0	0
15. Other medical and health professions	59	216	1,224	4,639
151. Dentist	0	0	0	0
152. Osteopath	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
153. Veterinarian	3	0	76	0
154. Pharmacy	3	2	53	40
1540. Pharmacy	0	1	0	19
1541. Pharmacist	3	1	53	21
1542. Pharmacologist	0	0	0	0
155. Optometrist	0	0	0	0
156. Nursing	21	156	424	3,392
1560. Nursing	1	6	13	134
1561. RN, graduate nurse, professional nurse	0	0	0	0
1562. Practical nurse	1	18	20	365
1563. Nurses' aide	13	128	271	2,804
1568. Medical serviceman	6	4	120	89
1569. Other	0	0	0	0
157. Specialized therapist	2	7	34	151
1571. Dental hygenist	1	5	21	107
1572. Podiatrist, chiropodist	0	1	0	23
1573. Physical therapist, physiotherapist	1	1	13	21
1574. Occupational therapist	0	0	0	0
1575. Chiropractor	0	0	0	0
1579. Other	0	0	0	0
158. Medical and dental technology	29	51	617	1,056
1580. Medical and dental technology	0	1	0	13
1581. Optician	3	1	67	20
1582. Medical technologist	4	8	113	195
1583. X-ray technologist	0	1	0	20
1584. X-ray technician	1	12	21	265
1585. Medical or laboratory technician (NEC)	17	20	341	402
1586. Anesthetist or nurse-anesthetist (if RN)	0	0	0	0
1587. Anesthetist or nurse-anesthetist (unless RN)	0	0	0	0
1588. Dental technology	1	2	13	33
1589. Other hospital technician	3	6	62	108
159. Hospital administration (NEC)	1	0	20	0
16. Psychology and related occupations	0	0	0	0
161. Psychoanalyst (non-MD)	0	0	0	0
162. Psychologist (other)	0	0	0	0
168. Aide	0	0	0	0
1681. Psychiatric aide	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
21. Social sciences and allied occupations	2	5	40	104
211. Social scientist	1	0	21	0
2111. Historian	0	0	0	0
2112. Political scientist	0	0	0	0
2113. Economist	1	0	21	0
2114. Sociologist	0	0	0	0
2115. Geographer	0	0	0	0
2116. Anthropologist	0	0	0	0
2117. Statistician (primarily economic or social science statistician)	0	0	0	0
2119. Other	0	0	0	0
212. Government official or political party official (other than 213-216)	0	0	0	0
2121. Government official--elected	0	0	0	0
2122. Government official--appointed	0	0	0	0
2123. Political party official	0	0	0	0
213. Diplomacy, foreign service	0	0	0	0
2131. Diplomat, ambassador, minister to foreign country	0	0	0	0
2132. Consul	0	0	0	0
2133. Diplomatic or consular attache	0	0	0	0
2139. Other	0	0	0	0
214. Law, jurisprudence	0	0	0	0
2141. Lawyer (NEC)	0	0	0	0
2142. Government attorney (including district attorney)	0	0	0	0
2143. Judge	0	0	0	0
215. Applied social science (misc.)	0	0	0	0
2151. Intelligence analysts, intelligence research analysts, etc.	0	0	0	0
216. Public administration (NEC)	1	4	19	84
217. Social work	0	1	0	20
2171. Social worker	0	0	0	0
2172. Psychiatric social worker	0	1	0	20
2179. Other	0	0	0	0
218. Counseling and guidance (non-psychologist)	0	0	0	0
2181. Vocational and educational guidance	0	0	0	0
2182. Family relations counselor, marriage counselor	0	0	0	0
2189. Other	0	0	0	0
219. Other	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
22. Writing and language skills	11	7	226	139
220. Writer (NEC)	0	0	0	0
221. Fiction writers	0	0	0	0
2211. Novelists, short story writers	0	0	0	0
2212. Playwrights, dramatists	0	0	0	0
2213. Writers of children's stories	0	0	0	0
2219. Other	0	0	0	0
222. Poets, etc.	0	0	0	0
2221. Poets	0	0	0	0
2222. Lyricists, songwriters (words only)	0	0	0	0
223. Writers of nonfiction (other than 224)	1	0	12	0
2231. Essayists	0	0	0	0
2232. Critics	0	0	0	0
2233. Free-lance writers	0	0	0	0
2239. Other	1	0	12	0
224. Journalists, reporters, etc.	3	1	54	21
2241. Reporters, journalists, etc.	2	1	33	21
2242. Radio-TV newscasters, commentators	1	0	21	0
2243. Newspaper columnists	0	0	0	0
2249. Other	0	0	0	0
225. Writers and editors for TV, radio, screen	0	1	0	13
226. Publishers, editors of publications, etc.	0	0	0	0
2261. Publisher	0	0	0	0
2262. Editor	0	0	0	0
227. Related newspaper and publishing occupations	7	5	160	105
2271. Proofreader	2	5	46	105
2279. Other newspaper occupations, NEC	5	0	114	0
228. Occupations requiring knowledge of foreign language	0	0	0	0
2281. Translator	0	0	0	0
2282. Interpreter	0	0	0	0
2283. Linguist	0	0	0	0
----. Foreign language teacher (h.s.) see 2425				
----. Foreign language teacher (coll.) see 2465				
23. Religion and Theology	1	2	13	40
231. Clergyman (priest, minister, pastor, preacher, rabbi)	0	0	0	0
2311. Missionary (if clergyman)	0	0	0	0
232. Monk or nun	0	1	0	20

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
2320. Monk or nun	0	1	0	20
2321. Nursing order	0	0	0	0
2322. Teaching order	0	0	0	0
2329. Other	0	0	0	0
233. Lay missionary (nonclergy)	0	1	0	20
2331. Medical missionary	0	1	0	20
2332. Missionary teacher	0	0	0	0
234. Director of religious education	1	0	13	0
239. Other	0	0	0	0
24. Education	2	20	41	408
240. Education	1	3	21	55
241. Teaching of young children	0	12	0	257
2411. Nursery school or kindergarten teacher	0	5	0	105
2412. Elementary school teacher	0	7	0	152
242. Secondary school teacher (including JHS)	1	3	20	55
2421. Math	0	0	0	0
2422. Science	0	0	0	0
2423. Social studies	0	0	0	0
2424. English	0	0	0	0
2425. Foreign language	0	1	0	13
2426. Commercial ed.	0	0	0	0
2427. Home economics	0	0	0	0
2428. Trade and industrial ed.	1	0	20	0
2429. Physical education	0	0	0	0
2431. Art teacher	0	0	0	0
2432. Music teacher	0	2	0	42
2433. Speech teaching	0	0	0	0
244. Teacher of handicapped	0	0	0	0
2441. Speech therapist	0	0	0	0
245. School administration (except 247)	0	0	0	0
2451. Director of nursery school or kindergarten	0	0	0	0
2452. Elementary school principal, assistant principal, or other administration	0	0	0	0
2453. Secondary school principal, assistant principal, dean, or other admin.	0	0	0	0
2454. School superintendent, etc.	0	0	0	0
246. College or university teacher	0	2	0	41
2460. College or university teacher	0	2	0	41
2461. Math	0	0	0	0
2462. Science	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
2463. Social studies	0	0	0	0
2464. English	0	0	0	0
2465. Foreign languages	0	0	0	0
2469. Other (NEC)	0	0	0	0
247. College or university administration	0	0	0	0
2471. College or university president	0	0	0	0
2472. Dean	0	0	0	0
2479. Other	0	0	0	0
248. Education research (NEC)	0	0	0	0
249. Other (NEC)	0	0	0	0
2499. Student proctor	0	0	0	0
25. Library science or archival science	7	23	128	427
251. Librarians and related occupations	5	23	87	427
252. Curators and related occupations	2	0	41	0
259. Other	0	0	0	0
31. Art	10	14	195	246
311. Fine arts	0	1	0	13
3111. Artist (painter)	0	1	0	13
3112. Sculptor	0	0	0	0
312. Commercial artist, fashion artist, advertising artist, illustrator	9	11	174	209
313. Designer (except 5741), industrial designer	1	2	21	24
314. Cartoonist	0	0	0	0
---. Architect (see 123)				
318. Art expert, art critic	0	0	0	0
32. Music	8	1	152	21
321. Composer, songwriter	0	0	0	0
3211. Composer of symphonies, opera, other serious music	0	0	0	0
3212. Songwriter (popular)	0	0	0	0
322. Musician (instrumental)	6	1	126	21
3220. Musician(instrumental)	3	0	65	0
3221. Serious music (e.g., concert artist, symphonic orchestra, etc.)	0	0	0	0
3222. Popular	3	1	61	21
323. Conductor, bandleader	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
324. Singer	0	0	0	0
3241. Opera, other serious music	0	0	0	0
3242. Folk songs	0	0	0	0
3243. Popular	0	0	0	0
325. Director (e.g., opera)	1	0	13	0
326. Orchestrator, arranger	0	0	0	0
327. Music teacher (except school)	1	0	13	0
328. Producer, manager	0	0	0	0
329. Other	0	0	0	0
33. Dance	0	1	0	20
331. Choreographer	0	0	0	0
332. Dancer (except 3741)	0	1	0	20
3321. Ballet dancer	0	1	0	20
3322. Other	0	0	0	0
3380. Instructor (except 3741 -- social dance instructor)	0	0	0	0
337. Professional ice-skater (exhibitions, revues)	0	0	0	0
339. Other	0	0	0	0
34. Drama, plays, etc. (stage, motion picture, TV, radio) (except 2212)	6	0	119	0
340. Theater (NEC)	0	0	0	0
341. Acting, stage	1	0	19	0
342. Directing	0	0	0	0
343. Designing stage settings, lighting, costuming, etc.	0	0	0	0
348. Producing	1	0	21	0
349. Other	4	0	79	0
35. Other performing arts (not 32-34)	6	8	135	163
350. Vague designations	0	0	0	0
3501. Entertainer (NEC)	0	0	0	0
3502. Show business (NEC)	0	0	0	0
351. Misc. TV, radio, stage, and night club occupations	5	2	114	51
3511. Announcer (TV or radio)	4	1	101	25
3512. MC	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
3513. Comedian	0	0	0	0
3514. Chorus girl, chorus boy (NEC)	0	0	0	0
3519. Other	1	1	13	26
352. Misc. performers (other than 32-34, 351) requiring special skills. Includes magicians, ventriloquists, jugglers, acrobats, trapeze and high-wire artists, lion tamers, animal acts, etc.	0	0	0	0
353. Circus or carnival occupations	0	0	0	0
3531. Performer (NEC)	0	0	0	0
3532. Barker	0	0	0	0
3538. Producer, manager, director	0	0	0	0
3539. Roustabout, other support occupations	0	0	0	0
358. Modeling	0	5	0	90
3580. Modeling	0	1	0	23
3581. Advertising model	0	3	0	47
3582. Artist's model	0	1	0	20
359. Miscellaneous	1	1	21	22
3591. Stunt man	0	0	0	0
3592. Stand-ins (other)	0	0	0	0
3599. Other	1	1	21	22
36. Sports and physical education	39	18	841	399
37. Recreational activities (other)	61	36	1,216	751
371. Camping	15	16	336	326
3711. Camp director	1	2	13	38
3712. Counselor	14	14	323	288
372. Park guides (national parks, etc.)	1	0	21	0
373. Scouting	1	0	20	0
3731. Scout leader	1	0	20	0
374. Dancing (ballroom, social)	0	5	0	99
3741. Teacher	0	5	0	99
375. Bridge pro	0	0	0	0
376. Sightseeing	1	0	13	0
3761. Guide	1	0	13	0
378. Recreation director (NEC)	11	8	238	182
379. Attendants (misc.) at recreation centers amusement parks, sports facilities, zoos, aquariums, etc.	32	7	588	144

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
41-42. Business (other than sales)	123	93	2,481	1,903
411. Banking and finance	5	3	101	54
4110. Banking and finance	1	0	12	0
4111. Bank president	0	0	0	0
4112. Banking (NEC)	3	3	68	54
4113. Finance (NEC)	1	0	21	0
412. Accounting, auditing, comptroller	22	33	404	676
4120. Accounting, audit	1	2	20	33
4121. Auditor	7	5	127	98
4122. CPA	0	0	0	0
4123. Other accountant	14	24	257	502
4124. Comptroller	0	2	0	43
413. Purchasing, procurement (exclude 4392)	1	3	19	54
4130. Purchasing, procurement	1	0	19	0
4131. Purchasing agent	0	3	0	54
414. Production management	7	0	134	0
4140. Production management	5	0	94	0
4141. Efficiency expert (NEC); industrial engineer (if efficiency expert is implied)	1	0	21	0
4142. Industrial engineer (if efficiency expert is not implied)	1	0	19	0
415. Advertising	9	10	168	206
416. Public relations	3	8	46	178
417. Personnel administration	9	2	179	33
418. Appraising, estimating	6	20	156	413
4180. Appraising, estimating	1	0	20	0
4181. Loan investigator; credit investigator	0	8	0	159
4182. Insurance adjustor	4	8	86	159
4189. Other appraising, estimating	1	4	50	95
419. Management (of a business or industry)	61	14	1,274	289
4190. Management	22	6	475	134
4191. Manufacturing management	1	0	22	0
4192. Wholesale or retail trade management, marketing	30	7	610	136
4193. Hotel management	0	0	0	0
4199. Other	8	1	167	19
421. Business agent for a private individual	0	0	0	0
4211. Theatrical agent	0	0	0	0
4212. Author's agent	0	0	0	0
4213. Professional athlete's manager	0	0	0	0
4219. Other	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
428. Misc. specialized business	0	0	0	0
4281. Pawnbroker	0	0	0	0
43. Sales	485	443	9,831	9,032
430. Sales or selling (unclassified)	70	106	1,404	2,196
4300. Sales or selling (unclassified)	3	0	62	0
4301. Salesclerk (NEC)	67	106	1,342	2,196
431. Salesclerk, checker, cashier in grocery store, 5-and-10, etc.	139	123	2,838	2,570
4310. Salesclerk, checker, cashier, etc.	71	41	1,552	860
4311. Primerily selling	20	16	392	333
4312. Primarily checkout (in self-service store)	34	23	623	498
4314. Primarily cashier	14	43	271	879
432. Salesclerk in other retail store (e.g., department store, clothing store, hardware store, furniture store)	169	183	3,331	3,647
433. Routeman (milk, laundry, etc.)	29	2	605	33
434. Peddler, hawker	3	0	53	0
435. Door-to-door sales or canvassing	10	5	207	96
4350. Door-to-door sales or canvassing	5	3	118	55
4351. Books, magazines, encyclopedias, educational items	4	1	66	20
4352. Other	1	1	23	21
436. Demonstrator	0	1	0	20
437. Auctioneer	0	0	0	0
438. Salesman, saleswoman (except 431-437)	48	9	1,091	186
4380. Salesman, saleswoman	27	4	572	68
4381. Stockbroker	1	0	22	0
4382. Securities dealer (other than 4381)	0	0	0	0
4383. Real estate	2	0	43	0
4384. Insurance	6	4	153	105
4385. Auto	7	0	169	0
4389. Other commodities or services	5	1	132	13
439. Related occupations	17	14	302	284
4390. Related occupations	1	1	13	23
4391. Sales manager	11	3	219	43
4392. Buyer for retail store	1	3	12	69
4393. Shopper, comparison shopper	0	0	0	0
4394. Collectors (bill collectors)	2	5	25	107
4397. Florist	0	0	0	0
4398. Window display	0	1	0	20
4399. Other (e.g., meter reader)	2	1	33	22

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
44-46. Clerical, officework, etc.				
44. Computing and account recording occupations (other than punchcard or tape record equipment, such as IBM)	157	906	3,055	18,651
440. Computing and account recording occupations	0	2	0	41
441. Bookkeeper	64	442	1,220	9,253
442. Teller	21	55	411	1,051
443. Cashier (other than 431)	21	124	429	2,601
444. Bookkeeping machine and accounting machine operator (not punched card or electronic)	4	65	96	1,344
445. Comptometer or adding machine operator	3	51	46	967
4450. Comptometer or adding machine operator	0	43	0	797
4451. Stat. clerk (if operate adding machine but not desk calculator)	3	8	46	170
446. Desk calculator operator (e.g., Friden Monroe, Marchant)	0	12	0	274
4460. Desk calculator operator	0	6	0	114
4461. Stat. clerk (if operate desk calculator)	0	6	0	160
447. Statistical clerk (except 4451, 4461)	44	148	853	2,980
449. Other (e.g., payroll clerk, unless typing or machine operation is indicated)	0	7	0	140
45. Punch card, paper tape, magnetic tape equipment	42	316	889	6,317
450. Punch card, paper tape, magnetic tape equip.	3	5	53	87
451. Electronic computer (digital or analog)	5	24	120	493
----. Computer systems analyst (see 1131)				
----. Computer programer (see 1132)				
4513. Coder for computer program	0	16	0	336
4514. Operator	5	8	120	157
452. Other punch-card equipment other than keypunch or verifier	20	58	440	1,169
4521. Tab, IBM, or electric accounting machine supervisor	1	0	20	0
4522. Tab or electric accounting machine operator	7	15	125	265
4523. Operator of IBM equipment other than tab or electric accounting machine	12	43	295	904

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
453. Same as 452, except no plugboard or control panel	4	18	79	350
4530. Same as 452, except no plugboard or control panel	0	1	0	19
4531. Tab or IBM supervisor	0	0	0	0
4532. Operator	4	17	79	331
454. Keypunch and/or verifier and/or paper tape puncher	10	211	197	4,218
4540. Keypunch and/or verifier and/or paper tape puncher	1	1	12	22
4541. Keypunch supervisor or keypunch-and-verifier supervisor or flexowriter supervisor	0	2	0	34
4542. Keypunch and/or verifier operator	9	204	185	4,082
4543. Flexowriter operator	0	4	0	80
46. Secretarial, steno, typing, etc.	285	3,833	5,518	76,365
460. Secretarial, steno, typing, etc.	8	36	163	779
461. Secretary	8	1,180	171	23,442
4610. Secretary	4	804	84	15,887
4611. Secretary-receptionist	0	94	0	1,811
4612. Secretary-bookkeeper	1	62	21	1,238
4613. Medical or dental secretary	1	139	20	2,827
4614. Legal secretary	2	81	46	1,679
462. Stenographer (include anyone other than 461 that takes shorthand)	1	566	33	11,378
463. Typist (shorthand not indicated)	3	293	68	5,745
4630. Typist	3	260	68	5,141
4631. Dictaphone operator	0	24	0	442
4632. Statistical typist	0	4	0	62
4633. Varitypist	0	5	0	100
464. Clerk-typist (include any clerk whose duties include typing)	58	931	1,236	18,514
465. File clerk (except 464)	39	235	686	4,553
466. General clerk in an office, general office work (except 464)	160	575	2,995	11,581
467. Office supervisor, or supervisor of clerical staff (NEC)	3	11	67	205
468. Office manager	3	3	68	65
469. Other (e.g., paymaster)	2	3	31	103

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
47. Other clerical, office work, etc.	812	648	16,167	13,297
471. Public contact occupations	20	418	399	8,673
4710. Public contact occupations	1	2	21	32
4711. Receptionist, information clerk	3	131	52	2,757
4712. Hotel clerk (desk clerk, room clerk)	4	2	87	47
4713. Telephone, switchboard, or PBX operator	5	271	103	5,584
4714. Box office attendant	1	3	21	67
4715. Reservations and tickets (public transportation)	1	2	21	47
4719. Other	5	7	94	139
472. Radio and telegraph operator	21	32	462	688
4720. Radio and telegraph operator	2	1	41	20
4721. Radio operator	4	1	88	21
4722. Telegraph operator	3	2	62	38
4723. Teletype operator	12	28	271	609
473. Office machine operator (NEC)	21	32	424	640
4730. Office machine operator (NEC)	2	5	42	94
4731. Duplicating machines (mimeo, ditto, etc.	13	12	269	254
4739. Misc. office machines, (NEC) (not typewriter, calculator, etc.)	6	15	113	292
474. Stock checking occupations	541	71	10,868	1,433
4740. Stock checking occupations	1	0	33	0
4741. Shipping and receiving clerks; order clerk	154	22	3,127	448
4742. Stock clerks; inventory	386	49	7,708	985
475. Administrative work (NEC)	7	4	163	64
478. Misc. communications clerks	127	51	2,481	1,003
4780. Misc. communications clerks	2	0	36	0
4781. Mail clerks, postal clerks	101	48	1,918	945
4782. Mail carriers	24	3	527	58
479. Miscellaneous	75	40	1,370	796
4790. Miscellaneous	1	0	20	0
4791. Office boys, office girls, messengers, errand boys, etc.	74	40	1,350	796
48. Organized labor movement	9	4	164	83
480. Organized labor movement	3	0	65	0
481. Trade union or labor union official	6	4	99	83
482. Labor organizer	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
51. Electrical and mechanical	652	29	13,635	615
510. Electrical and mechanical	2	0	41	0
511. Electrician and electronic technician	211	11	4,308	266
5110. Electrician and electronic technician	6	0	131	0
5111. Electrician	83	6	1,697	131
5112. Electronic technician (include radar technician and radio technician)	81	5	1,661	135
5113. Appliance and radio-TV repair	38	0	756	0
5114. Telephone installation and repair	3	0	63	0
512. Mechanic	265	7	5,669	114
5120. Mechanic	74	0	1,636	0
5121. Auto mechanic	109	1	2,356	21
5122. Airplane mechanic	40	0	826	0
5123. Office machine repair	8	6	148	93
5124. Industrial machinery repair	19	0	396	0
5129. Other specialty	15	0	307	0
513. Machinist, diemaker, diesinker, etc.	174	11	3,617	235
52. Manufacturer and/or repair of miscellaneous small products	17	2	298	46
520. Manufacturer and/or repair of miscellaneous small products	4	0	76	0
521. Clock and watch making repair	1	0	12	0
522. Scientific and laboratory instruments	0	0	0	0
523. Photographic equipment repair	0	0	0	0
524. Musical instruments	2	1	44	21
525. Jewelry repair	6	0	88	0
529. Other	4	1	78	25
53. Structural	575	7	12,499	136
5300. Structural trades undifferenciated	38	0	859	0
5310. Construction job	2	0	41	0
5311. Plumber	29	0	643	0
5312. Bricklayer, mason	32	0	700	0
5313. Roofer	12	0	246	0
5314. Welding, riveting, other metal trades	113	5	2,360	95
5315. Plasterer	11	0	254	0
5316. Painter	54	1	1,163	20

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
5317. Paperhanger	0	0	0	0
5318. Roadbuilding	29	0	640	0
5321. Carpenter	131	0	2,795	0
5322. Cabinet maker	11	0	202	0
5331. Operating heavy earth-moving equipment, e.g., tractor, steam shovel, etc.	75	0	1,731	0
5399. Other	38	1	865	21
54. Mining, quarrying, and well-drilling	23	0	572	0
540. Mining, quarrying, and well-drilling	2	0	71	0
541. Mining	3	0	66	0
542. Quarrying	3	0	61	0
543. Oil drilling	15	0	374	0
55. Transportation	234	3	5,102	60
551. Railroad operation	7	0	169	0
5511. RR engineer	0	0	0	0
5512. Fireman	2	0	45	0
5513. Conductor	0	0	0	0
5514. Switchman	1	0	21	0
5519. Other	4	0	103	0
552. Aviation	5	0	105	0
5520. Aviation	1	0	20	0
5521. Pilot	0	0	0	0
5522. Flight engineer	0	0	0	0
5523. Navigator	1	0	20	0
5529. Other	3	0	65	0
553. Merchant Marine	2	0	40	0
5531. Captain	1	0	20	0
5532. Pilot	0	0	0	0
5533. Mates (1st-4th)	0	0	0	0
5534. Engineers (1st-4th)	0	0	0	0
5535. Boatswain, bosun	0	0	0	0
5536. Quartermaster	0	0	0	0
5537. Seaman	0	0	0	0
5538. Fireman, oiler, etc.	1	0	20	0
5539. Other	0	0	0	0
554. Drivers -- long distance	18	0	439	0
5541. Truckdriver -- long haul	18	0	439	0
5542. Bus driver -- long haul (e.g., Greyhound, Trailways, etc.)	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
555. Drivers -- local transportation	202	3	4,349	60
5551. Truck driver -- local	189	3	4,091	60
5552. Bus driver -- local	2	0	43	0
5553. Taxi driver, cab driver	3	0	61	0
5554. Chauffeur	6	0	118	0
5557. Driving instructor	0	0	0	0
5558. Streetcar motorman	0	0	0	0
5559. Other (parking lot attendant)	2	0	36	0
56. Printing	99	14	2,108	358
560. Printing	15	2	322	71
561. Compositor, typesetter, etc.	8	1	134	20
562. Engraver, photoengraver, etc.	2	0	33	0
563. Pressman, etc.	52	3	1,119	79
564. Lithographer	5	0	141	0
565. Linotype	2	2	41	70
569. Other	15	6	318	118
57. Miscellaneous (involving creative or artistic elements)	44	51	890	1,172
571. Photography	23	10	428	205
5710. Photography	1	0	93	0
5711. Photographer (except 5712)	5	3	26	54
5712. Cameraman (motion picture)	2	0	148	0
5713. Photographic processing (still and motion picture)	10	4	52	85
5719. Other	5	3	109	66
572. Interior decoration	2	2	72	43
573. Landscape architect	5	0	103	0
574. Clothing and fashion trades	13	37	274	879
5741. Fashion designer	0	1	0	21
5742. Dressmaker	0	0	0	0
5743. Tailor	0	0	0	0
5744. Milliner	1	2	21	42
5745. Furrier	0	0	0	0
5746. Seamstress, sewing	2	29	42	700
5747. Cutting	1	1	21	26
5748. Leather trades	8	3	170	64
5749. Other	1	1	20	26
575. Upholsterer	0	0	0	0
579. Other	1	2	13	45

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
58. Food and beverage preparation (other than domestic service)	176	72	3,601	1,560
580. Food and beverage preparation	3	1	57	22
581. Dietitian	0	5	0	102
582. Chef, cook, baker	72	16	1,530	360
5820. Chef, cook, baker	41	11	870	252
5821. Industrial	13	1	265	23
5822. In hotel or restaurant	1	1	21	21
5823. Short-order cook	17	3	374	64
583. Butcher, meat-cutter	53	1	1,025	20
584. Bartender	3	1	64	13
585. Soda fountain or lunch counter attendant, etc.	34	44	664	932
589. Other	11	4	261	111
59. Other	37	15	763	302
591. Steward, stewardess, hostess (except restaurant)	1	4	23	83
5910. Steward, stewardess, hostess	1	0	23	0
5911. Ship steward	0	0	0	0
5912. Airplane hostess, stewardess, steward	0	3	0	60
5913. Train or bus hostess	0	1	0	23
592. Home economist (NEC)	0	1	0	22
593. Deepsea divers, professional skin divers, etc.	1	0	13	0
598. Funeral director, mortician, undertaker, embalmer	8	0	161	0
599. Misc. skilled occupations (NEC)	27	10	566	197
5990. Misc. skilled occupations	27	10	566	197
5991. Blacksmith, farrier, horseshoer	0	0	0	0
61. U. S. Armed Forces (NEC)	696	28	14,874	591
610. Armed Forces (unspecified)	7	0	154	0
6100. Armed Forces (unspecified)	6	0	133	0
6101. Enlisted	1	0	21	0
6102. Officer	0	0	0	0
611. Air Force	235	12	5,014	216
6110. Air Force	9	0	190	0
6111. Enlisted	226	12	4,824	216
6112. Officer	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
612. Army	165	8	3,451	207
6120. Army	3	0	68	0
6121. Enlisted	162	8	3,383	207
6122. Officer	0	0	0	0
613. Navy	217	6	4,736	115
6130. Navy	6	0	125	0
6131. Enlisted	210	6	4,585	115
6132. Officer	1	0	26	0
614. Marine Corps	58	2	1,239	53
6140. Marine Corps	1	0	23	0
6141. Enlisted	56	2	1,193	53
6142. Officer	1	0	23	0
615. Coast Guard	14	0	280	0
6150. Coast Guard	0	0	0	0
6151. Enlisted	14	0	280	0
6152. Officer	0	0	0	0
62. Intelligence (NEC) (e.g., military intelligence, foreign intelligence, CIA, etc.)	0	0	0	0
621. Intelligence agent, counter-intelligence agent, espionage	0	0	0	0
---. Intelligence analyst, intelligence research analyst, etc. (see 215)				
63. Protective (other)	23	2	494	34
631. Police and detectives, public service	9	1	185	12
6310. Police and detectives, public service	1	0	21	0
6311. Uniformed police (includes patrolmen, motorcycle police, etc.)	8	0	164	0
6312. Detective, plainclothesman, special agent, etc.	0	1	0	12
632. Fireman, fire department	6	0	109	0
633. Sheriff, bailiff	0	0	0	0
634. Police and detectives, private	0	1	0	22
635. Guards and watchman (except 636)	7	0	179	0
636. Crossing watchman	0	0	0	0
639. Other (including foreign armed forces)	1	0	21	0
71. Farming (commercial)	359	6	8,609	119
710. Farming	67	1	1,576	21

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
711. Farm or ranch owner	5	0	169	0
712. Farm or ranch manager or foreman	9	0	180	0
713. Tenant farmer	0	0	0	0
714. Hired hand (farmhand, ranch hand)	277	5	6,662	98
715. Migrant farm worker	0	0	0	0
719. Other	1	0	22	0
72. Gardening, horticulture (ornamental)	25	1	610	21
720. Gardening, horticulture	1	1	21	21
721. Gardener	24	0	589	0
73. Other agricultural occupations	20	2	427	33
730. Other agricultural occupations	1	0	21	0
731. Nurseryman, etc.	19	2	406	33
74. Forestry, hunting, trapping	26	1	690	13
740. Forestry, hunting, trapping	2	0	44	0
741. Forester	6	0	147	0
742. Hunting, trapping	0	1	0	13
743. Guide	3	0	63	0
744. Logging	15	0	436	0
75. Fishing	2	0	42	0
79. Other	0	0	0	0
81. Services (other than domestic)	482	502	10,544	10,862
810. Services (other than domestic)	1	0	21	0
811. Miscellaneous	312	87	7,088	1,928
8111. Usher	4	0	89	0
8112. Elevator operator, dispatcher	9	12	238	284
8113. Packer, wrapper	51	53	1,118	1,159
8114. Gas station attendant	205	1	4,707	23
8115. Hospital attendant	24	20	529	441
8119. Other	19	1	407	21
812. Food service (other than domestic)	84	253	1,736	5,513
8120. Food service	1	1	33	21
8121. Headwaiter, hostess in restaurant	0	4	0	82

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
8122. Waiter, waitress, carhop	27	225	526	4,940
8123. Busboy	24	4	513	79
8124. Dishwasher, kitchen help (not 58)	26	14	537	288
8129. Other	6	5	127	103
813. Drycleaning, pressing, and laundering services (NEC)	11	17	178	354
817. Personal services (physical contact)	24	129	505	2,719
8171. Barber	18	0	390	0
8172. Hairdresser, beautician	5	116	95	2,369
8173. Manicurist	0	2	0	58
8174. Masseur, masseuse	0	0	0	0
8175. Cosmetologist	0	11	0	292
8179. Other	1	0	20	0
818. Personal services (other)	50	16	1,016	348
8180. Personal services (other)	1	0	26	0
8181. Porter (e.g., redcap, skycap)	22	0	472	0
8182. Bootblack	0	0	0	0
8183. Bellhop, bellboy, bell captain	2	0	42	0
8184. Housekeeper in hotel	0	1	0	52
8185. Maid in hotel	0	11	0	221
8186. Checkroom attendant, hatcheck girl	0	1	0	21
8187. Attendant (restroom, locker-room, bath, wardrobe, etc.)	6	1	107	20
8188. Car washing, window washing, etc.	14	0	277	0
8189. Other	5	2	92	34
819. Misc. services other than domestic	0	0	0	0
82. Domestic service for private family	12	169	263	3,794
820. Domestic service for private family	0	1	0	21
821. Housekeeper	0	29	0	640
822. Butler	1	0	33	0
823. Cook	0	2	0	46
824. Maid, laundress, dayworker	0	42	0	959
825. Houseman, yardman	10	0	207	0
826. Child care	0	89	0	2,001
8260. Child care	0	2	0	43
8261. Nursemaid, governess	0	3	0	60
8262. Baby-sitter	0	84	0	1,898
828. Companion	1	6	23	127
829. Other	0	0	0	0

TABLE I-1 (continued)

Code and Description	Unweighted		Weighted	
	Male	Female	Male	Female
83. Boarding house and lodging house keeper	0	0	0	0
84. General labor, unspecialized	797	327	17,336	7,009
840. General labor, unspecialized	228	9	4,867	221
841. Factory, assembly line	261	252	5,710	5,336
842. Longshoreman, stevedore, loading	6	0	172	0
843. Janitor	67	1	1,427	22
844. Factory, floor work	99	56	2,125	1,238
849. Other	136	9	3,035	192
91. Professional gamblers	0	0	0	0
92. Various marginal occupations	0	0	0	0
921. Astrologers, fortune-tellers, palmists, tea-leaf readers, graphologists, mediums, etc.	0	0	0	0
922. Obviously untrained and unqualified practitioners of licensable professions	0	0	0	0
9221. "Healers" (no medical degree)	0	0	0	0
9222. "Psychologists" (no college)	0	0	0	0
93. Criminal or illegal practice of licensable professions (other than 922)	0	0	0	0
931. "Lawyer" who has been disbarred or was never licensed.	0	0	0	0
932. Illegal practice of medicine (except 9221)	0	0	0	0

APPENDIX J

RESPONSES OF HIGH-SCHOOL SENIORS ONE YEAR AFTER GRADUATION FROM HIGH SCHOOL TO FOLLOW-UP QUESTIONNAIRE ITEM 24 CONCERNING CAREER AND OCCUPATIONAL CHOICES

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Table J-1. Responses of High-School Seniors One Year After Graduation From High School to Item 24 in the Special Follow-Up Questionnaire Concerning Career and Occupational Choices	J-3

NOTES TO APPENDIX J

1. The table which follows is the weighted distribution of responses of respondents who were seniors in high school in 1960 to item 24 of the first follow-up questionnaire sent to them in 1961, one year after their class had graduated from high school. Item 24 read as follows:

> "24. What occupation or profession do you expect to make your career? Please be specific:"

2. Each unit in the accompanying table represents the nearest 100 cases.

3. The responses have been tabulated from the approximately 70 per cent of the senior class who responded for whom there were data on the master tape. This group was further divided by sex and by whether or not the respondent had attended a recognized college. Weight "A" was used to correct for differences in sampling. The weighted and unweighted N's for each of these four groups is as follows:

	Males		Females	
	Unweighted	Weighted	Unweighted	Weighted
Noncollege	7,413	157,175	11,919	248,698
College	10,850	223,370	9,488	192,881

4. In the accompanying table not all of the job codes are given, only for those in which the weighted frequency, when rounded to the closest hundred, was one or more. As the approximate weighting factor was 1:20, only those occupations appear in the table for which there were three or more respondents.

5. As the construction of this occupation code follows in general the same general rules found in most other codes, each successive integer from the left to the right represents successive subdivisions of the code. For example, 1220 was used as the code for those respondents who said they wanted to be an engineer without specifying the particular variety. The other numbers in this series, 1221 through 1229, were used to represent engineers with a particular specialty such as 1221 -- Civil and hydraulic engineer; 1222, Electrical and electronic engineer, etc. In many places the digit nine is used to signify "other" under any particular group. The abbreviation (NEC) means "Not Elsewhere Classified" which usually means that there was some other code for related groups.

TABLE J-1

Responses of High-School Seniors One Year After Graduation From High School to Item 24 in the Special Follow-Up Questionnaire Concerning Career and Occupational Choices

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
1100	Mathematics and allied fields			2	
1110	Mathematician or mathematical statistician			1	
1111	Mathematician			19	9
1112	Mathematical statistician	1			
1120	Statistician (NEC)			1	
1132	Computer programmer (unless just coding)	1		2	2
1200	Physical sciences (pure and applied)	1		2	1
1210	Physical scientist			1	
1211	Chemist	3		36	12
1212	Physicist	2		25	1
1213	Astronomer			1	
1214	Geologist			4	
1215	Meteorologist			1	
1219	Other physical scientist (NEC)			1	
1220	Engineer (unspecified specialty)	15		42	1
1221	Civil and hydraulic engineer	7		31	
1222	Electrical, electronic engineer	28		100	
1223	Mechanical, automotive engineer	9		54	
1224	Aeronautical engineer	4		16	
1225	Chemical engineer	5		31	1
1226	Mining, petroleum engineer			2	
1227	Metallurgical engineer			3	
1229	Other engineer	2		13	
1230	Architect	5		31	
1270	Automation (NEC)			1	
1280	Lab technician (physical sciences)	1	1	1	1
1281	Lab technician chemistry		1	1	
1282	Lab technician physics			1	
1289	Other lab technician	1		1	1
1291	Draftsman, mechanical drawing	38	2	16	1
1292	Surveyor	1		1	
1299	Other engineering support occupations	1			
1300	Biological sciences, clinical sciences, etc.			1	
1310	Biologist (NEC)	1		9	5
1311	Zoologist (NEC)			3	
1312	Botanist (NEC)			1	
1320	Specialists in agricultural science	2		11	
1330	Specialists in fish, wildlife, and forestry science; conserv.	4		9	1
1342	Physiology (human)			1	
1343	Microbiology (includes bacteriology, virology, immunology)			1	3
1344	Biochemistry			3	2
1400	M. D. (specialty not given)	6	1	88	12
1401	M. D. general practitioner			3	
1402	Pediatrician			1	1
1405	Surgeon	1		7	
1406	Pathologist			1	1
1411	Obstetrician, gynecologist			1	

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
1491	Psychiatrist			3	1
1499	Other medical specialist			2	
1510	Dentist	1	1	35	
1520	Osteopath			1	
1530	Veterinarian	3	1	11	2
1540	Pharmacy	1	1	5	1
1541	Pharmacist	2	1	23	7
1550	Optometrist			3	
1560	Nursing	1	60		42
1561	RN, graduate nurse, professional nurse	2	100	1	68
1562	Practical nurse		35		3
1563	Nurses' aide		4		
1568	Medical serviceman	1			
1569	Other nursing		1		
1571	Dental hygenist		3		11
1573	Physical therapist, physiotherapist	1	2	2	8
1574	Occupational therapist				2
1575	Chiropractor	1		1	
1579	Other specialized therapist				5
1580	Medical and dental technology		1		1
1581	Optician		1	1	
1582	Medical technologist	1	6	1	29
1583	X-ray technologist		1		1
1584	X-ray technician	2	9		3
1585	Medical or laboratory technician (NEC)	2	5	2	5
1588	Dental technology	1	2	1	
1589	Hospital technician		1		
1610	Psychoanalyst (non-MD)			1	
1620	Psychologist	1	1	17	18
2113	Economist			7	1
2114	Sociologist			2	3
2116	Anthropologist			1	2
2119	Other social scientist			1	1
2120	Government official or political party official			1	
2123	Political party official			1	
2130	Diplomacy, foreign service	1	1	9	10
2131	Diplomat, ambassador, minister to foreign country			3	2
2140	Law, jurisprudence	2		10	1
2141	Lawyer (NEC)	6	2	87	7
2142	Government attorney			1	
2151	Intelligence analysts, intelligence research analysts, etc.	1			
2160	Public administration (NEC)	1		1	
2170	Social work				5
2171	Social worker	2	6	4	34
2172	Psychiatric social worker				3
2179	Other social work				1
2180	Counseling and guidance			2	2
2181	Vocational and educational guidance			1	3

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
2200	Writer (NEC)	1	1	4	4
2210	Fiction writers			1	
2211	Novelists, short story writers				1
2221	Poets			1	
2240	Journalists, reporters, etc.	1	1	3	3
2241	Reporters	2	2	6	10
2261	Publisher				1
2262	Editor				1
2280	Occupations requiring knowledge of foreign language				1
2281	Translator				2
2282	Interpreter				5
2283	Linguist			1	
2310	Clergyman (priest, minister, pastor, preacher, rabbi)	10	3	49	1
2311	Missionary (if clergyman)		1	3	2
2320	Monk or nun	1	2		2
2330	Lay missionary (non-clergy)		5	1	5
2331	Medical missionary		1	1	2
2340	Director of religious education		1	1	5
2390	Other religion and theology	1		1	1
2400	Education	19	25	127	162
2410	Teaching of young children			1	1
2411	Nursery school or kindergarten teacher		2		11
2412	Elementary school teacher	1	11	8	265
2420	Secondary school teacher (including JHS)	4	4	31	54
2421	Math teacher	1	1	19	21
2422	Science teacher			11	12
2423	Social studies teacher	2	2	15	19
2424	English teacher	1	2	10	54
2425	Foreign language teacher		1	3	20
2426	Commercial education teacher		2	2	20
2427	Home economics teacher		1		25
2428	Trade and industrial education teacher	1		6	
2429	Physical education teacher	4	2	20	26
2431	Art teacher			3	12
2432	Music teacher	1	2	8	20
2433	Speech teaching			3	14
2440	Teacher of handicapped		1		10
2450	School administration (except 2470)			1	
2460	College or university teacher			13	7
2461	Math teacher			1	1
2462	Science teacher			2	1
2463	Social studies teacher			4	1
2464	English teacher			2	3
2465	Foreign languages teacher			1	
2469	Other college or university teacher (NEC)			1	2
2490	Other education research (NEC)			1	1

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
2510	Librarians and related occupations		2		8
3100	Art	1	2		2
3111	Artist (painter)	1	2	1	4
3120	Commercial artist, fashion artist, adv.artist, illustrator	11	10	13	17
3130	Designer, industrial designer	2		4	1
3132	Designer of consumer goods, etc.			1	
3200	Music	1		2	
3220	Musician (instrumental)	3	1	2	2
3221	Serious music (e.g.,concert artist, symphonic orchestra,etc.)		1	1	3
3222	Popular music	1			
3230	Conductor, bandleader			2	
3240	Singer	2	1		1
3241	Opera, other serious music	1			
3250	Director (e.g., opera)			1	
3270	Music teacher (except school)		1	3	5
3290	Other music			1	1
3320	Dancer (except 3741)		1		1
3321	Ballet dancer				1
3400	Drama, plays, etc. (stage, motion picture, TV, radio)				1
3400	Theater (NEC)			1	
3410	Acting, stage	1		2	3
3420	Directing			1	1
3480	Producing			1	1
3501	Entertainer (NEC)			1	
3510	Misc. TV, radio, stage, and night club occupations	1		1	
3511	Announcer (TV or radio)	4		3	
3519	Other performing arts (not 3200-3400)			1	
3580	Modeling		5		2
3581	Advertising model		2		
3600	Sports and physical education	8		12	
3700	Other recreational activities				1
3731	Scout leader				1
3741	Dancing teacher		2		
3780	Recreation director (NEC)			1	
4110	Banking and finance	2	2	3	
4112	Banking (NEC)	3	8	7	
4113	Finance (NEC)			1	
4120	Accounting, auditing, comptroller	2	1	7	1
4121	Auditor	1		1	
4122	CPA	13	3	36	6
4123	Other accountant	28	10	62	11
4131	Purchasing agent			1	
4140	Production management	1		1	
4141	Efficiency expert (NEC); ind.engineer (if eff.exp.is implied)			1	
4150	Advertising	3	1	8	3
4160	Public relations	1	2	5	2
4170	Personnel administration	1	2	7	4
4182	Insurance adjustor		1		
4189	Other appraising, estimating			1	

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
4190	Management (of a business or industry)	20	2	44	1
4191	Manufacturing management	1		4	
4192	Wholesale or retail trade management, marketing	6	1	14	3
4193	Hotel management	1		3	
4199	Other management	3		3	1
4300	Sales or selling (unclassified)	3	1	2	
4301	Salesclerk (NEC)	2	3	2	
4310	Salesclerk, checker, cashier in grocery store,5-and-10, etc.	1			
4314	Primarily cashier		1		
4320	Salesclerk in other retail store (e.g.,dept.,cloth.,hardwr.)	2	1	2	
4360	Demonstrator				1
4380	Salesman, saleswoman (except 4310)	7	1	8	
4381	Stockbroker	1		5	
4382	Securities dealer (other than 4381)			1	
4383	Real estate sales	2		5	
4384	Insurance sales	1		3	
4385	Auto sales	2		1	
4389	Other commodities or services	1		3	
4390	Related occupations	1			
4391	Sales manager	1		2	
4392	Buyer for retail store	2	2	1	11
4410	Bookkeeper	4	46	3	6
4420	Teller		4		1
4430	Cashier (other than 4310)		3		
4440	Bookkeeping machine and accounting machine operator (not punched card or electronic)		2		
4450	Comptometer or adding machine operator		5		
4470	Statistical clerk		2		
4500	Punch card, paper tape, magnetic tape equipment (e.g.,IBM)	5	7	3	1
4514	Electronic computer operator	1	3	1	
4522	Tab operator, electric accounting machine operator (operation of other machines, such as reproducer, collator, interpreter, sorter, may also be included as add. duty)	2	2		
4523	Operator of IBM equipment other than tab or electric accounting machine (e.g.,reproducer, collator, interpreter,sort.)	1	4		
4532	IBM operator		2		
4540	Keypunch and/or verifier and/or paper tape puncher		1		
4542	Keypunch and/or verifier operator	2	21		2
4600	Secretarial, steno, typing, etc.	6	49	1	6
4610	Secretary	3	336	1	114
4611	Secretary-receptionist		5		1
4612	Secretary-bookkeeper		1		
4613	Medical or dental secretary		28		18
4614	Legal secretary		15		10
4620	Stenographer (include anyone other than 4610 taking shortnd.)		34		8
4630	Typist (shorthand not indicated)		18		2
4631	Dictaphone operator		1		

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
4640	Clerk-typist	1	24		1
4650	File clerk (except 4640)		3		
4660	General clerk in an office, general office work (except 4640)	3	32		4
4670	Office supervisor, or supervisor of clerical staff (NEC)		3		
4680	Office manager	1	1	1	
4700	Other clerical, office work, etc.		1		
4710	Public contact occupations		1		
4711	Receptionist, information clerk		8		2
4713	Telephone operator, switchboard operator, PBX operator		20		2
4715	Reservations and tickets (public transportation)	1	2		
4719	Other clerical, office work		2		1
4723	Teletype operator	1	2		
4730	Office machine operator (NEC)		1		
4741	Shipping and receiving clerks; order clerk	1			
4742	Stock clerks, inventory clerk	1			
4750	Administrative work (NEC)	2		3	2
4781	Mail clerks, postal clerks	4			
4782	Mail carriers	2			
4791	Office boys, office girls, messengers, errand boys, etc.		2		
5100	Electrical and mechanical trade	2			
5110	Electrician and electronic technician	6		2	
5111	electrician	24		4	
5112	Electronic technician (include radar tech., and radio tech.)	69		17	
5113	Appliance and radio-TV repair	9		1	
5120	Mechanic	30		5	
5121	Auto mechanic	32		4	
5122	Airplane mechanic	12		2	
5123	Office machine repair	4			
5124	Industrial machinery repair	2			
5129	Other mechanical specialty	2			
5130	Machinist, diemaker, diesinker, etc.	30	1	4	
5250	Jewelry repair	1			
5290	Other repair	1			
5300	Structural	6		4	
5311	Plumber	5		1	
5312	Bricklayer, mason	5		1	
5314	Welding, riveting, other metal trades	13		1	
5316	Painter	1			
5318	Roadbuilding	1			
5321	Carpenter	13		2	
5322	Cabinet maker	3			
5331	Operating heavy earth-moving equipment, (e.g., tractor, steam shovel, bulldozer, other heavy machinery)	7			
5399	Other structural (including "construction job")	4		1	
5430	Oil drilling	1			
5500	Transportation	1			

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
5510	Railroad operation	1			
5520	Aviation	2	2	2	1
5521	Pilot	4		10	
5522	Flight engineer	1			
5523	Navigator			1	
5529	Other aviation career	1		1	
5530	Merchant marine	1		1	
5541	Truck driver--long haul	3			
5551	Truck driver--local (e.g., delivery truck)	4			
5559	Other (parking lot attendant)	1			
5600	Printing	11		2	
5620	Engraver, photoengraver, etc.	1			
5630	Pressman, etc.	4			
5640	Lithographer	1		1	
5650	Linotype	2			1
5690	Other printing	1			
5710	Photography	2	1	1	
5711	Photographer	3	1	1	
5720	Interior decoration	1	3	1	11
5730	Landscape architect			1	
5740	Clothing and fashion trades		1		
5741	Fashion designer		4	1	6
5742	Dressmaker		1		
5746	Seamstress, sewing		3		1
5749	Other clothing and fashion trades				1
5810	Dietitian		1	1	7
5820	Chef, cook, baker	4	1	1	
5830	Butcher, meat-cutter	5			
5890	Other food and beverage preparation	1		1	
5912	Airplane steward, stewardess		30		12
5920	Home economist (NEC)		1		7
5980	Funeral director, mortician, undertaker, embalmer	2	1	3	
5990	Miscellaneous skilled occupations (NEC)	2	2	1	
6100	Armed forces (unspecified)	8		1	
6110	Air Force	3	1	3	
6111	Enlisted	5	1	2	
6112	Officer	2		3	
6120	Army	2			
6121	Enlisted	2	2	1	
6122	Officer			5	
6130	Navy	4		1	
6131	Enlisted	6	1	1	
6132	Officer	1		6	
6140	Marine	1		1	
6141	Enlisted	2		1	
6142	Officer			1	
6150	Coast Guard				
6151	Enlisted	1			

TABLE J-1 (continued)

Job Code	Career or Occupational Field	Non-College		College	
		M	F	M	F
6152	Officer			1	
6300	Protective (other)	1		1	
6310	Police and detectives, public service	4		2	
6311	Uniformed police (includes patrolman, motorcycle police, police unspecified)	18	1	5	
6312	Detective, plainclothesman, special agent, etc.	1		2	
6320	Fireman, fire department	4		1	
6390	Other protective (including foreign armed forces)			1	
7100	Farming (commercial) include dairy farming	47		21	
7110	Farm or ranch owner	18	1	7	
7120	Farm or ranch manager or foreman	2		5	
7140	Hired hand (farmhand, ranch hand)	6		1	
7190	Other farming	1		1	
7200	Gardening, horticulture (ornamental)			1	
7210	Gardener	1			
7300	Other agricultural occupations			1	
7310	Nurseryman, etc.	1			
7400	Forestry, hunting, trapping			1	
7410	Forester	6		10	
7440	Logging	2			
8113	Packer, wrapper		1		
8114	Gas station attendant	1			
8115	Hospital attendant		1		
8122	Waiter, waitress, carhop		4		
8171	Barber	8	1	1	
8172	Hairdresser, beautician	5	88		5
8175	Cosmetologist		18		1
8400	General labor, unspecialized	6	1		
8410	Factory, assembly line	10	8	1	
8430	Janitor	1			
8440	Factory, floor work	2	1		
8490	Other general labor	3	1		

A P P E N D I X K

THE DISTRIBUTION OF RESPONSES TO ITEMS OF THE STUDENT INFORMATION BLANK BY COLLEGE AND NONCOLLEGE RESPONDENTS AND NONRESPONDENTS BY SEX

	Page
Notes on the Student Information Blank	K-2
Table K-1	
Responses to Items in the Project TALENT Student Information Blank made by High-School Seniors Who Responded or Who Did Not Respond to the 1961 Mail Questionnaire	K-4

NOTES ON THE STUDENT INFORMATION BLANK

1. Data in the six columns of figures in the following tables are based on the following samples:

		Noncollege Respondents	College Respondents	Non-respondents
Males	Weighted	157,200	223,400	253,000
	Unweighted	7,606	10,575	11,902
Females	Weighted	248,700	192,900	229,200
	Unweighted	12,130	9,242	11,147

2. All figures in the table are percentages based on those who answered each question, except for the figures in the line marked "(Number that omitted item)." These figures are weighted N's of those who omitted the question, rounded to the nearest hundred. No differentiation is made between those who intentionally omitted the question and those who did not get to it.

3. The division of the data between "Noncollege," "College," and "Nonrespondents" was done on the basis of response to Item 32 in the follow-up questionnaire. The respondent group was divided into two groups by whether or not they had been to an accredited college. The nonrespondent group consisted of all other grade-12 students for whom there were data on the master tape.

4. The time limit for filling out this blank was 80 minutes. After 30 minutes, students were told that if they had not yet reached item 150 they should "try to hurry along." After 60 minutes, if they had not reached item 300 they were again told to "try to hurry along." Students were warned when there was only five minutes left.

5. It was anticipated that some students would have trouble with the wording contained in Part II, the Family. The following directions were supplied to the teacher or the test administrator to assist in understanding the terms used in this section.

Examples:

a. The student lives with his mother and his step-father, and his natural father is living. The student should answer for his mother and his step-father.

b. The student lives with his mother only; his father is not living; or his parents are separated and there is no male head of the household. The student should answer for both parents. If he lacks information about his father, he should answer "Don't know," or skip the question, whichever is indicated in the item. If his father is deceased, he should answer the questions to the best of his knowledge for the time when his father was living.

c. The student lives with relatives or guardians. He should answer for them even if he has knowledge about his natural parents.

d. Married students should answer for their parents or the heads of the households in which they lived prior to marriage. <u>In no case are they to answer for their spouses.</u>

TABLE K-1

Responses to Items in the Project TALENT Student Information Blank Made by High-School Seniors Who Responded or Who Did Not Respond to the 1961 Mail Questionnaire

STUDENT INFORMATION BLANK

Directions: These questions are about yourself, your family, and your plans for the future. This is not a test, and there are no right or wrong answers. Answer each question sincerely and thoughtfully as it applies to you. In no way will your answers affect your grades in school. All answers are strictly confidential.

Answer every question. For each question you are to mark *one answer* and *only one answer*. Be sure to read each question carefully, and then mark your answer in the appropriate space on your answer sheet. Some of the questions may be difficult for you to answer. Do not spend too much time on these questions, but mark the *one best answer*, and go on to the next question. You should have enough time to answer all the questions if you move along steadily.

Part I: ACTIVITIES

Directions: The questions in this part are about things you have done. Answer each question sincerely and thoughtfully. Each question has *one answer* and *only one answer*. Answer every question even if you are not sure of your answer. Now, go ahead and answer the questions.

Organizations

Items 1-10. How active have you been in any one or more of the following organizations?

Noncollege Respondents		College Respondents		Non-respondents	
M	F	M	F	M	F
3.0	8.3	7.5	18.1	4.2	7.9
4.9	9.7	7.9	13.8	5.3	10.0
9.2	13.4	11.0	14.5	10.5	15.1
3.3	3.6	3.9	4.0	3.6	3.5
2.3	2.0	2.2	1.5	2.2	2.1
77.1	63.0	67.5	48.2	74.3	61.4
3	5	3	2	13	7

1. School newspaper, magazine, or annual
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

1.7	2.1	4.8	5.6	2.6	2.8
4.9	6.2	9.9	11.5	6.3	8.0
12.2	12.3	18.5	20.1	14.0	15.0
5.7	4.8	7.6	7.3	6.5	5.7
4.6	3.4	5.1	3.9	5.5	3.8
70.6	70.2	54.1	51.6	65.1	64.7
5	10	8	8	19	12

2. School subject matter clubs, such as science, mathematics, language, or history clubs
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

4.9	9.7	12.6	21.5	6.1	11.1
6.7	13.2	12.0	19.3	7.4	14.1
10.8	17.3	13.5	17.8	11.8	17.2
4.2	4.6	4.3	4.3	4.9	5.4
4.3	3.6	3.3	2.4	4.5	3.7
69.1	51.5	54.3	34.7	65.3	48.4
9	11	9	8	21	14

3. Debating, dramatics, or musical clubs or organizations
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

7.1	1.8	5.9	2.1	7.7	2.1
10.1	3.4	7.7	3.6	9.9	3.9
13.7	6.5	11.4	5.7	13.6	7.5
5.3	1.9	4.4	1.9	4.9	2.3
3.8	2.0	3.4	1.4	4.0	2.5
60.1	84.3	67.2	85.3	59.9	81.8
7	13	9	8	24	13

4. Hobby clubs, such as photography, model building, hot rod, electronics, woodworking, crafts, etc.
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

6.0	4.9	4.4	5.7	5.9	4.4
7.1	6.7	4.2	5.9	6.2	7.0
7.2	8.6	4.3	6.1	7.4	8.4
3.2	2.7	2.1	2.3	3.5	3.1
2.5	2.2	1.6	1.5	2.7	2.6
74.0	75.0	83.4	78.4	74.2	74.5
10	14	9	10	18	17

5. Farm youth groups, such as 4-H club, Future Farmers of America, etc.
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

9.6	16.6	17.3	29.3	11.0	17.7
14.7	18.9	19.2	23.2	15.1	20.2
21.4	23.2	21.8	19.6	21.4	22.2
9.5	8.9	10.7	7.7	10.0	8.1
7.2	5.7	6.1	4.6	7.1	5.9
37.7	26.6	24.8	15.7	35.3	25.9
13	13	11	7	25	15

6. Church, religious, or charitable organization, such as Catholic Youth of America, B'nai B'rith Youth Organization, Protestant youth group; organized non-school youth groups such as YMCA, YWCA, Hi-Y, Boy's Club, etc.
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

6.2	5.9	7.7	6.7	7.4	6.8
12.5	14.4	14.5	15.7	14.0	15.3
18.4	18.3	18.6	15.6	18.1	18.0
6.2	3.9	5.2	2.6	6.3	3.9
5.1	2.8	3.0	1.9	5.2	3.4
51.7	54.7	51.0	57.5	48.9	52.5
15	22	16	10	35	25

7. Informal neighborhood group
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

0.7	0.4	0.7	0.6	1.0	0.7
1.3	0.8	1.2	0.9	1.9	1.1
2.5	1.1	1.4	1.2	3.1	2.2
2.2	0.7	1.0	0.5	2.4	1.0
2.1	0.9	1.1	0.6	2.8	1.5
91.2	96.1	94.5	96.1	88.9	93.5
9	17	9	9	26	18

8. Political club, such as Young Democrats or Republicans
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

2.8	6.2	6.3	11.7	4.2	7.6
3.9	8.3	7.4	12.3	5.6	10.0
5.1	8.4	7.3	9.6	7.1	9.0
2.6	2.3	2.4	2.4	3.2	2.2
2.8	2.0	2.1	1.3	3.3	2.4
82.8	72.8	74.6	62.5	76.5	68.9
25	39	24	22	58	34

9. Social clubs, fraternities, or sororities
   - A. Extremely active
   - B. Very active
   - C. Fairly active
   - D. A member, but not very active
   - E. A member, but rarely active
   - F. Not a member of any of these organizations

   (Number that omitted item)

5.9	2.2	4.1	2.5	5.5	2.3
3.6	1.7	2.7	1.7	3.8	1.7
3.1	1.3	2.2	1.4	3.4	1.8
1.4	0.5	1.0	0.4	2.1	0.8
1.8	0.8	1.0	0.4	2.3	1.0
84.2	93.6	88.9	93.6	82.9	92.4
11	17	11	8	27	19

10. Military or drill units
    - A. Extremely active
    - B. Very active
    - C. Fairly active
    - D. A member, but not very active
    - E. A member, but rarely active
    - F. Not a member of any of these organizations

    (Number that omitted item)

62.3	61.0	46.8	45.8	58.0	57.8
16.3	18.0	22.0	23.1	17.2	18.0
9.8	9.9	14.7	14.7	11.2	10.9
4.0	4.0	6.7	7.4	5.0	5.0
1.6	2.1	3.7	3.7	2.2	2.6
6.0	5.0	6.1	5.4	6.4	5.7
7	10	5	5	17	10

11. How many times have you been president of a class, a club, or other organization (other than athletic) in the last 3 years?
    - A. None
    - B. Once
    - C. Twice
    - D. Three times
    - E. Four times
    - F. Five or more times

    (Number that omitted item)

44.4	29.1	24.1	11.7	41.1	28.2
17.6	19.3	19.1	12.9	18.7	19.6
15.5	18.1	20.0	17.5	16.4	15.0
7.8	12.2	13.8	15.7	9.0	11.8
4.1	7.4	7.9	12.9	5.1	8.2
8.6	13.9	15.1	29.3	9.6	14.2
9	10	9	6	27	10

12. How many times have you been an officer or committee chairman (other than president) of a class, a club, or other organization (other than athletic) in the last 3 years?
    - A. None
    - B. Once
    - C. Twice
    - D. Three times
    - E. Four times
    - F. Five or more times

    (Number that omitted item)

69.3	63.1	64.0	61.3	63.6	60.9
11.9	12.3	14.7	12.0	13.8	12.1
6.3	7.3	7.6	7.3	8.5	8.1
2.4	3.1	3.0	3.5	3.3	3.7
1.3	2.0	1.5	2.1	1.7	2.4
8.7	11.8	9.2	13.6	9.2	12.8
8	10	5	4	20	14

13. How many times in the last 3 years have you been captain of an athletic team?
    - A. None
    - B. Once
    - C. Twice
    - D. Three times
    - E. Four times
    - F. Five or more times

    (Number that omitted item)

Hobbies

Items 14-29. How often have you done any one or more of the following in the past 3 years? Include extra-curricular activities at school, but do not include things done for school assignments. In each group of activities, answer for *one* or *more* in the group.

8.4	11.0	7.1	13.9	8.5	12.4
9.8	12.5	9.1	14.7	10.9	12.7
21.2	26.6	20.9	27.3	21.4	25.8
22.4	21.2	24.6	21.0	21.7	21.0
38.2	28.6	38.3	23.1	37.5	28.1
12	10	8	8	21	15

14. Drawing, painting, sculpting, or decorating
    - A. Very often
    - B. Often
    - C. Occasionally
    - D. Rarely
    - E. Never

    (Number that omitted item)

5.7	11.5	8.3	19.6	6.9	13.3
8.1	13.7	11.5	18.3	9.0	14.2
15.0	20.6	18.5	23.0	16.1	21.4
18.4	17.2	17.9	15.8	17.0	17.1
52.8	36.9	43.7	23.4	51.0	34.0
14	13	10	7	26	16

15. Acting, singing, or dancing for a public performance
    - A. Very often
    - B. Often
    - C. Occasionally
    - D. Rarely
    - E. Never

    (Number that omitted item)

5.4	3.3	7.0	3.0	5.0	2.8
8.9	6.0	10.4	6.7	7.9	5.6
19.3	13.2	21.5	14.3	16.9	12.7
18.4	16.9	20.4	18.5	19.7	16.3
47.9	60.6	40.7	57.5	50.5	62.6
14	17	13	9	26	18

16. Collecting stamps, coins, rocks, insects, etc.
    - A. Very often
    - B. Often
    - C. Occasionally
    - D. Rarely
    - E. Never

    (Number that omitted item)

9.8	2.4	8.0	0.4	7.8	0.4
14.6	1.1	13.5	0.9	12.2	1.3
23.2	3.7	27.7	4.0	25.1	3.5
18.8	9.2	22.2	10.1	20.5	8.6
31.5	85.5	28.6	84.6	34.4	86.2
12	12	11	7	27	16

17. Building model airplanes, ships, trains, cars, etc.
    - A. Very often
    - B. Often
    - C. Occasionally
    - D. Rarely
    - E. Never

    (Number that omitted item)

4.0	1.3	4.6	1.4	3.6	1.6
5.8	2.6	5.9	2.9	5.5	2.5
10.3	6.2	11.6	6.6	11.3	6.9
16.3	10.4	18.1	11.5	15.6	11.4
63.6	79.4	59.8	77.6	63.9	77.6
7	7	6	3	19	11

18. Working with photographic equipment (do not include taking occasional snapshots)
    - A. Very often
    - B. Often
    - C. Occasionally
    - D. Rarely
    - E. Never

    (Number that omitted item)

2.0	1.6	0.9	1.6	2.0	1.8
4.1	4.3	2.3	4.8	4.3	4.3
11.6	13.7	9.3	15.6	12.0	13.5
19.2	20.4	19.7	21.7	18.6	19.6
63.1	60.1	67.8	56.4	63.1	60.8
13	16	11	10	31	22

19. Making jewelry, pottery, or leather work
    - A. Very often
    - B. Often
    - C. Occasionally
    - D. Rarely
    - E. Never

    (Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents	
M	F	M	F	M	F
7.2	0.2	6.6	0.1	6.8	0.3
13.6	0.5	10.9	.7	11.8	0.8
24.1	2.9	23.0	.	23.4	3.1
20.2	6.2	22.1	6.7	20.0	6.2
34.9	90.2	37.5	89.5	37.9	89.6
15	15	14	9	37	26

20. Making or repairing electrical or electronic equipment
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

8.9	0.2	3.3	0.1	8.4	0.3
15.7	0.7	9.5	0.6	15.0	0.7
25.7	2.4	21.3	2.6	23.3	2.6
19.7	6.4	24.7	6.6	20.2	6.7
29.9	90.3	41.2	90.1	33.2	89.6
17	20	14	12	36	29

21. Cabinet making or woodworking
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

8.8	0.2	2.9	0.2	8.2	0.5
14.7	0.6	7.2	0.6	13.8	0.6
22.3	1.5	16.5	1.9	20.1	1.6
20.0	3.7	22.2	4.9	19.7	4.2
34.2	94.0	51.3	92.4	38.1	93.1
18	23	13	16	36	34

22. Metal working
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

27.6	0.9	11.6	0.6	21.2	1.2
21.8	1.5	15.6	1.0	20.1	1.7
23.5	3.1	25.6	2.7	22.8	3.6
13.4	6.4	19.7	5.3	14.6	5.8
18.7	88.0	27.5	90.5	21.3	87.6
14	28	11	17	33	39

23. Mechanical or auto repair
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

17.1	21.7	16.1	24.3	16.2	21.0
20.7	21.9	18.8	22.6	18.9	21.1
21.1	22.2	21.9	21.6	20.7	22.9
17.6	11.7	17.1	11.0	18.4	11.8
23.6	22.5	26.0	20.4	25.9	23.2
13	26	13	12	34	29

24. Raising or caring for animals or pets
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

1.1	31.0	0.5	27.9	1.2	29.3
1.6	27.8	0.7	26.3	2.2	27.4
4.1	26.0	2.4	27.9	4.5	25.9
3.9	8.8	7.1	10.9	8.8	9.3
84.2	6.4	89.2	6.9	83.3	8.2
16	18	14	9	41	18

25. Sewing, knitting, crocheting, or embroidering
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

5.8	49.4	4.7	40.5	6.7	47.7
11.8	27.9	11.0	20.2	12.0	27.9
26.4	16.3	29.8	21.4	25.3	16.5
23.7	3.7	26.1	5.5	23.2	4.3
32.3	2.7	28.3	2.3	32.8	3.6
18	17	20	9	42	20

26. Cooking
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

38.6	13.2	50.7	13.5	45.5	13.6
22.5	19.8	20.8	18.9	21.3	19.8
21.4	28.3	17.0	28.4	17.8	26.6
9.5	18.8	6.7	20.3	8.0	19.4
8.0	20.0	4.8	18.8	7.5	20.6
14	22	13	13	31	21

27. Playing baseball, football, or basketball
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

6.7	9.8	5.5	7.3	6.5	8.9
13.5	17.9	10.7	15.5	11.3	17.0
19.8	25.2	19.1	25.9	17.9	24.3
21.9	21.2	23.9	25.3	22.6	22.0
38.1	25.8	40.8	26.1	41.7	27.8
18	19	17	13	40	25

28. Gardening, raising flowers or raising vegetables
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

38.1	4.3	29.5	3.2	37.1	5.2
24.8	9.4	23.0	8.4	25.3	9.0
19.7	20.5	23.7	20.2	19.6	21.2
9.1	24.3	13.2	26.4	9.7	23.9
8.3	41.5	10.6	41.7	8.3	40.7
16	19	14	16	29	27

29. Hunting or fishing
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

Items 30-33. How often have you done any one or more of the following in the past 3 years?

4.3	6.8	8.2	16.6	5.7	9.4
10.5	14.6	15.8	24.8	11.3	16.6
25.6	35.1	35.5	35.5	26.1	32.8
24.2	20.3	22.8	14.8	21.9	19.0
10.7	10.0	8.1	4.6	11.5	9.0
24.6	13.2	9.7	3.6	23.5	13.2
14	17	10	10	28	23

30. Attending concerts, lectures, plays (not motion pictures), ballet; visiting art galleries or museums
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Only once
F. Never
(Number that omitted item)

20.3	23.9	33.5	34.3	25.6	25.9
30.8	29.5	33.5	31.9	31.0	29.7
26.7	24.1	22.4	20.5	24.7	23.0
11.3	10.5	6.2	7.2	9.7	9.7
3.2	3.6	1.8	2.0	3.2	3.8
7.7	8.6	2.6	4.1	5.8	7.9
11	17	12	9	27	18

31. Playing golf or tennis; swimming
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Only once
F. Never
(Number that omitted item)

14.4	2.7	19.4	3.8	18.1	3.4
20.9	5.7	20.7	5.7	22.7	6.4
26.2	10.8	24.4	9.8	24.4	11.5
16.3	12.6	16.1	11.8	15.2	12.2
7.7	9.6	7.0	9.0	7.1	9.8
14.5	58.5	12.4	59.9	12.6	56.8
12	18	13	11	33	22

32. Playing hockey, lacrosse, or handball; boxing, wrestling, track, field events
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Only once
F. Never
(Number that omitted item)

17.9	21.3	20.7	25.3	19.9	23.3
23.5	23.7	25.3	25.3	24.3	23.9
27.5	27.3	28.0	27.1	25.9	26.6
14.9	12.1	13.6	11.2	14.7	11.3
6.4	6.3	5.7	5.6	6.5	6.3
9.7	9.3	6.6	5.5	8.8	8.5
31	64	31	34	61	59

33. Going bicycling, ice skating, skiing, canoeing, horseback riding
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Only once
F. Never
(Number that omitted item)

Work

5.4	1.5	4.5	1.7	6.0	2.1
31.8	16.0	39.0	22.1	32.6	16.5
25.4	26.2	29.0	30.5	25.9	25.0
14.3	20.6	12.8	20.9	14.0	19.8
9.4	17.5	6.8	14.8	9.3	17.4
13.7	18.3	7.9	10.1	12.2	19.2
14	17	14	9	31	20

34. On the average, how many hours a week do you spend doing chores around the house?
A. None
B. One to three
C. Four to six
D. Seven to nine
E. Ten to twelve
F. Thirteen or more
(Number that omitted item)

3.7	12.2	3.7	12.5	3.4	13.0
17.7	6.7	15.3	5.5	19.5	7.6
27.1	17.3	29.7	18.3	27.6	15.9
30.6	27.9	31.1	29.9	28.7	28.0
17.7	29.6	17.9	28.8	17.7	30.3
3.2	6.3	2.2	5.1	3.2	7.3
10	10	11	5	27	11

35. How old were you when you first started earning money? *Do not count money earned for doing chores around your own home.*
A. I have not done this.
B. 10 or younger
C. 11 or 12
D. 13 or 14
E. 15 or 16
F. 17 or older
(Number that omitted item)

13.8	36.9	15.0	43.0	11.8	35.6
15.9	27.3	19.5	28.4	16.7	26.9
20.2	17.6	22.0	15.4	20.4	18.4
20.1	10.2	18.4	7.4	20.2	9.9
13.7	4.4	12.8	3.2	14.6	4.7
16.3	3.6	12.2	2.7	16.2	4.4
16	15	13	9	33	16

36. How many summers have you had a regular job for which you were paid? *Do not count money earned for doing chores around your own home.*
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

31.2	47.7	41.2	51.1	32.3	48.4
14.2	16.4	14.5	20.1	14.0	16.0
11.8	10.1	12.1	10.6	12.1	10.2
8.9	7.9	9.4	7.3	9.4	7.8
11.0	8.6	9.6	5.8	10.1	8.1
22.9	9.4	13.2	5.1	22.0	9.4
19	18	16	7	34	21

37. During the school year, about how many hours a week do you work for pay? *Do not include chores done around your own home.*
A. None
B. About 1-5 hours
C. About 6-10 hours
D. About 11-15 hours
E. About 16-20 hours
F. About 21 hours or more
(Number that omitted item)

Items 38-46. How often have you done each of the following kinds of part-time or summer work for pay in the past 3 years?

14.5	32.1	16.8	28.4	14.0	28.8
17.7	24.4	18.7	24.1	17.3	24.2
23.8	22.4	25.0	24.2	23.8	23.2
18.0	9.4	16.2	10.2	18.1	10.5
26.0	11.7	23.3	13.0	26.7	13.2
19	21	18	9	32	21

38. Delivering newspapers, baby-sitting, mowing lawns, house cleaning, etc.
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

2.2	7.8	2.4	7.5	2.4	7.4
3.5	7.8	3.1	6.7	4.0	8.0
5.4	9.6	5.6	10.0	6.7	10.9
9.9	10.2	9.7	9.6	11.2	10.9
79.1	64.5	79.2	66.2	75.7	62.8
20	21	18	10	37	23

39. Clerical work; typing, filing, etc.
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

19.1	4.3	12.4	3.1	16.6	3.4
13.5	4.3	8.6	2.9	12.9	4.3
13.0	6.0	11.1	4.0	13.2	5.7
11.7	7.3	11.1	5.2	12.1	6.8
42.7	78.2	56.8	84.7	45.3	79.7
21	24	23	13	41	24

40. Farm work or orchard work
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

1.1	0.7	1.0	0.9	1.2	0.7
1.2	0.3	1.1	0.3	1.9	0.4
2.3	0.4	1.7	0.6	2.5	0.8
3.9	1.2	3.0	0.9	4.7	1.5
91.5	97.5	93.2	97.3	89.7	96.6
23	28	25	13	41	29

41. Assistant in a science laboratory
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

3.4	1.4	2.8	1.0	4.5	1.6
4.2	1.3	2.9	0.9	4.7	1.2
5.0	1.2	3.1	0.6	5.7	1.0
5.7	1.6	3.9	0.6	6.4	1.4
81.7	94.6	87.8	96.8	78.6	93.9
26	31	28	18	50	35

42. Factory work
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

16.7	6.2	19.7	5.9	16.8	6.7
12.4	5.2	14.0	4.6	13.9	6.0
13.3	6.5	11.7	5.4	14.1	7.0
9.6	4.8	8.0	3.8	10.8	6.1
48.1	77.4	46.7	80.3	44.5	74.2
27	35	20	16	282	281

43. Retail store work; stockwork, delivery, clean up, etc.
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

8.0	11.3	8.8	10.3	9.5	11.2
7.9	8.1	9.2	8.4	9.4	8.7
10.5	8.1	9.7	8.3	11.5	8.9
10.5	5.2	9.1	5.1	10.6	5.8
63.2	67.2	63.3	67.9	59.1	65.3
30	40	30	23	57	37

44. Sales work
A. Very often
B. Often
C. Occasionally
D. Rarely
E. Never
(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						45. Camp counselor
2.8	2.1	4.3	4.0	4.4	3.5	A. Very often
3.0	1.7	4.1	3.5	4.3	3.1	B. Often
4.8	3.0	5.2	4.8	6.3	4.2	C. Occasionally
5.0	2.8	4.3	3.2	6.3	3.7	D. Rarely
84.4	90.4	82.1	84.5	78.7	85.6	E. Never
40	39	38	20	69	44	(Number that omitted item)
						46. Other work for pay
29.6	16.8	27.3	14.3	30.0	16.3	A. Very often
21.2	12.6	19.5	11.1	19.4	12.3	B. Often
23.4	19.1	23.8	17.0	21.2	17.3	C. Occasionally
9.8	10.6	9.5	10.3	7.8	9.3	D. Rarely
16.0	41.0	19.9	47.3	21.5	44.7	E. Never
32	43	29	26	61	46	(Number that omitted item)

Items 47-50. What per cent of your spending money comes from each of these sources? *Choose the closest answer.*

						47. Regular allowance
60.8	57.8	57.4	49.5	53.9	50.2	A. 0 per cent
13.4	12.2	11.2	10.1	14.4	13.5	B. 20 per cent
6.7	6.5	6.6	6.2	9.5	8.6	C. 40 per cent
6.0	5.4	7.1	8.0	7.0	5.9	D. 60 per cent
5.3	7.7	9.4	13.8	7.4	11.3	E. 80 per cent
7.8	10.4	8.2	12.5	7.9	10.6	F. 100 per cent
27	41	24	19	64	51	(Number that omitted item)
						48. From family, as I need it
33.3	19.8	34.7	22.2	33.2	23.2	A. 0 per cent
32.2	28.7	32.9	29.1	30.9	25.3	B. 20 per cent
11.0	10.7	8.9	9.0	10.6	10.7	C. 40 per cent
7.5	8.3	7.3	7.7	8.2	8.9	D. 60 per cent
7.9	13.2	7.9	13.7	7.9	12.1	E. 80 per cent
8.0	19.3	8.4	18.3	9.2	19.8	F. 100 per cent
29	42	27	22	66	45	(Number that omitted item)
						49. From a job
18.2	37.6	24.1	42.3	20.7	36.0	A. 0 per cent
12.7	15.2	14.9	18.7	15.6	16.4	B. 20 per cent
9.7	7.6	8.9	7.6	9.9	8.2	C. 40 per cent
11.1	7.7	9.8	7.0	10.4	7.6	D. 60 per cent
19.3	13.7	19.7	11.9	18.2	13.5	E. 80 per cent
28.9	18.2	22.7	12.5	25.2	18.3	F. 100 per cent
46	50	43	29	86	59	(Number that omitted item)
						50. Some other source
57.9	65.0	67.4	71.1	52.5	60.7	A. 0 per cent
21.6	18.4	18.9	16.2	21.2	17.2	B. 20 per cent
6.6	4.8	4.2	3.1	7.2	6.0	C. 40 per cent
4.3	3.0	2.4	1.6	5.1	4.0	D. 60 per cent
3.6	2.3	2.1	1.5	5.2	3.9	E. 80 per cent
6.0	6.5	5.1	6.5	8.8	8.2	F. 100 per cent
35	47	34	28	79	61	(Number that omitted item)

Social

						51. How old were you when you first went out on a date?
7.3	3.9	5.0	3.5	4.7	2.6	A. I have never had a date.
12.4	8.3	17.3	13.8	15.9	9.1	B. 12 or younger
36.6	44.1	43.2	49.3	40.3	45.3	C. 13 or 14
24.0	26.7	20.4	22.0	22.4	26.9	D. 15
14.4	13.4	11.6	9.2	12.7	13.1	E. 16
5.3	3.5	2.6	3.1	4.0	3.1	F. 17 or older
11	18	18	16	29	17	(Number that omitted item)
						52. On the average, how many dates do you have in a week?
20.4	14.9	17.0	18.0	15.5	11.2	A. I never have dates.
35.5	25.4	46.2	37.4	35.9	24.4	B. About 1
23.4	24.9	23.4	26.7	25.0	26.3	C. About 2
13.0	23.5	10.4	14.4	15.7	25.6	D. About 3
5.5	8.7	2.3	3.2	5.5	9.6	E. About 4 or 5
2.2	2.5	0.6	0.4	2.4	2.9	F. About 6 or 7
27	46	33	38	47	43	(Number that omitted item)
						53. During the school year, on what days are you usually permitted to go out in the evening for fun (until 8 P.M. or later)?
1.4	1.6	1.2	1.1	2.0	1.8	A. Saturdays only
14.6	16.8	22.9	25.2	14.9	18.1	B. Fridays and Saturdays only
18.4	31.5	22.3	31.1	20.1	33.7	C. Fridays, Saturdays, and Sundays only
60.5	43.6	49.1	36.9	58.1	39.2	D. Any day
3.9	5.4	3.4	5.0	3.5	6.1	E. Only for very special occasions
1.1	1.0	1.1	0.7	1.3	1.1	F. Never
18	34	26	24	38	32	(Number that omitted item)
						54. How many times have you gone "steady" in the past three years?
38.1	29.0	48.0	43.4	34.4	25.0	A. None
29.9	32.8	29.2	30.4	30.5	32.7	B. Once
17.3	20.4	13.4	15.9	17.7	22.8	C. Twice
7.6	9.3	5.1	6.0	8.9	10.0	D. Three times
3.2	4.1	1.9	2.5	3.4	4.7	E. Four times
4.0	4.3	2.3	1.9	5.1	4.7	F. Five or more times
20	23	24	23	36	29	(Number that omitted item)
						55. On the average, how many evenings a week during the school year do you usually go out for fun and recreation?
8.7	10.8	11.1	10.8	8.1	10.1	A. Less than one
14.1	18.8	15.9	19.3	13.7	18.0	B. One
26.1	28.6	31.3	33.8	25.0	29.4	C. Two
24.8	26.8	26.5	26.2	26.3	26.6	D. Three
15.4	11.8	11.2	8.7	15.8	12.3	E. Four or five
11.0	3.3	4.1	1.2	11.2	3.7	F. Six or seven
18	26	26	25	35	29	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	

Reading

						56. How many books have you read (not including those required for school) in the past 12 months? *Don't count magazines or comic books.*
18.2	10.2	10.2	4.7	18.6	10.7	A. None
42.2	42.5	42.2	35.2	41.0	43.4	B. 1 to 5
16.7	20.0	20.0	22.7	17.8	20.8	C. 6 to 10
8.7	9.7	10.7	13.0	8.4	9.6	D. 11 to 15
5.1	7.0	6.3	9.8	5.0	6.2	E. 16 to 20
9.1	10.6	10.7	14.6	9.2	9.4	F. 21 or more
16	21	21	19	26	24	(Number that omitted item)

Items 57-64. How many books or magazines have you read in each of the following groups (not including those required for school) in the past 12 months?

						57. Western stories, adventure stories, or mystery stories (not comic books)
26.3	34.5	27.5	34.8	27.4	34.8	A. None
18.6	20.8	20.9	21.4	19.1	22.8	B. 1
16.2	14.9	16.9	15.3	16.1	13.7	C. 2
9.4	8.2	9.9	8.4	9.2	8.6	D. 3
5.5	5.4	5.4	5.3	5.5	5.0	E. 4
23.9	16.2	19.4	14.7	22.7	15.0	F. 5 or more
23	26	26	24	34	30	(Number that omitted item
						58. Science fiction books or magazines (not comic books)
41.0	59.1	38.8	58.7	42.5	56.8	A. None
20.0	15.5	20.3	16.6	19.6	16.0	B. 1
13.7	8.1	14.3	8.1	13.8	9.4	C. 2
7.9	4.7	7.7	4.3	7.3	4.7	D. 3
4.3	3.1	4.8	2.7	4.7	3.6	E. 4
13.1	9.5	14.1	9.6	12.1	9.6	F. 5 or more
25	27	27	26	39	32	(Number that omitted item
						59. Science—non-fiction
54.6	70.1	42.6	61.9	52.9	66.1	A. None
17.8	13.3	21.5	16.4	8.4	14.5	B. 1
10.2	6.2	13.0	8.5	11.2	7.3	C. 2
6.0	3.6	7.7	4.6	5.9	4.2	D. 3
3.9	2.2	4.3	2.6	3.7	2.6	E. 4
7.6	4.7	10.9	6.1	7.9	5.3	F. 5 or more
30	35	36	32	52	39	(Number that omitted item
						60. Plays, poetry, essays, literary criticism, or classics
60.0	39.6	44.7	21.3	54.6	35.2	A. None
16.5	20.8	19.6	18.5	17.3	21.3	B. 1
9.4	15.2	13.3	16.5	10.8	14.6	C. 2
5.1	8.4	7.4	11.5	6.0	8.8	D. 3
2.8	5.7	4.4	8.7	3.6	6.2	E. 4
6.1	10.4	10.6	23.5	7.8	13.8	F. 5 or more
28	38	39	28	58	42	(Number that omitted item
						61. Politics, world affairs, biography, autobiography, historical novels
45.9	36.8	30.0	20.1	43.1	36.3	A. None
20.3	22.0	20.9	20.0	20.3	22.0	B. 1
13.4	15.5	17.1	17.5	13.6	14.7	C. 2
6.3	9.4	9.3	11.9	7.5	8.9	D. 3
4.3	5.8	5.9	9.0	4.6	6.2	E. 4
9.7	10.4	16.9	21.5	10.8	11.9	F. 5 or more
35	41	38	27	66	48	(Number that omitted item
						62. Religious books or magazines
49.2	28.7	48.4	27.8	49.3	28.6	A. None
22.0	25.2	21.6	23.1	20.3	24.5	B. 1
10.8	15.8	11.7	15.5	11.8	16.2	C. 2
5.8	9.1	5.3	9.0	5.8	8.7	D. 3
3.0	6.2	3.4	6.4	3.5	6.4	E. 4
9.2	15.0	9.6	18.2	9.4	15.7	F. 5 or more
30	39	33	30	60	42	(Number that omitted item
						63. Comic books
40.0	41.6	48.1	53.1	41.4	44.3	A. None
8.9	10.1	7.9	10.6	8.8	10.8	B. 1
7.6	9.0	7.1	7.2	8.3	7.9	C. 2
5.1	5.0	3.9	4.2	5.4	4.9	D. 3
3.7	4.0	3.1	3.4	3.6	4.5	E. 4
34.7	30.3	29.8	21.5	32.4	27.7	F. 5 or more
23	34	27	26	50	38	(Number that omitted item
						64. Love stories
66.1	18.9	73.7	29.2	64.7	21.0	A. None
12.3	14.5	11.1	17.0	12.2	14.7	B. 1
6.9	13.2	5.9	14.6	7.4	12.7	C. 2
3.9	8.2	2.8	8.4	4.5	8.4	D. 3
2.1	6.8	1.3	6.2	2.2	7.0	E. 4
8.7	38.4	5.2	24.6	8.9	36.2	F. 5 or more
24	32	30	30	45	33	(Number that omitted item

Studying

Items 65-90. For the following statements indicate how often each one applies to you. Please answer the questions sincerely. Your answers will not affect your grades in any way.

						65. I do a little more than the course requires.
7.0	8.3	11.4	15.1	8.1	8.2	A. Almost always
16.0	20.9	22.1	25.7	16.2	20.6	B. Most of the time
24.6	28.6	27.7	28.5	25.2	29.7	C. About half the time
39.0	34.5	30.4	25.0	37.2	33.2	D. Not very often
13.4	7.6	8.3	5.8	13.3	8.3	E. Almost never
19	21	20	20	33	24	(Number that omitted item)
						66. I have a difficult time expressing myself in written reports, examinations, and assignments.
14.7	12.5	6.7	6.3	13.1	13.1	A. Almost always
19.6	18.0	12.0	12.0	18.7	18.3	B. Most of the time
22.1	21.4	13.0	17.7	21.2	20.4	C. About half the time
29.3	32.2	38.4	37.2	31.0	31.5	D. Not very often
14.3	16.0	25.0	26.8	16.1	16.7	E. Almost never
20	21	18	19	33	27	(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents	
M	P	M	P	M	P
					67. Being a fast reader helps me complete my lessons quickly.
14.3	19.1	20.1	25.8	13.8	17.6	A. Almost always
20.1	24.1	22.6	24.5	20.1	22.9	B. Most of the time
19.6	18.7	18.7	17.8	19.8	17.9	C. About half the time
28.0	25.4	24.8	21.5	28.2	26.1	D. Not very often
18.0	12.7	13.8	10.4	18.2	15.6	E. Almost never
31	43	54	39	190	132	(Number that omitted item)
					68. My grades reflect my ability fairly accurately.
8.3	16.8	13.3	25.7	9.1	15.0	A. Almost always
23.4	37.4	29.3	38.2	23.0	33.7	B. Most of the time
25.6	23.9	23.6	19.7	24.6	25.6	C. About half the time
27.8	16.1	22.7	12.1	27.8	18.9	D. Not very often
14.9	5.8	11.1	4.3	15.6	6.8	E. Almost never
26	34	25	25	46	37	(Number that omitted item)
					69. I make sure that I understand what I am to do before I start an assignment.
26.7	38.3	33.4	46.1	27.2	38.6	A. Almost always
40.4	42.7	44.2	40.6	38.6	40.6	B. Most of the time
21.0	13.5	15.3	9.8	20.9	14.3	C. About half the time
8.8	4.4	5.5	2.6	9.6	5.2	D. Not very often
3.0	1.1	1.7	1.0	3.6	1.3	E. Almost never
24	26	24	22	46	29	(Number that omitted item)
					70. I seem to accomplish very little compared to the amount of time I spend studying.
7.2	6.1	3.6	3.9	6.8	7.2	A. Almost always
14.7	13.2	8.9	7.9	15.5	14.1	B. Most of the time
24.2	20.5	16.8	14.5	22.5	21.0	C. About half the time
35.8	42.7	44.2	46.3	36.5	40.5	D. Not very often
18.1	17.6	26.5	27.4	18.8	17.2	E. Almost never
36	48	54	57	70	67	(Number that omitted item)
					71. Lack of interest in my school work makes it difficult for me to keep my attention on what I am doing.
16.6	8.9	7.7	4.1	16.4	10.1	A. Almost always
19.9	11.9	11.4	7.0	19.0	13.0	B. Most of the time
24.4	20.0	21.2	13.5	24.6	20.3	C. About half the time
26.7	35.9	36.4	38.5	26.8	35.2	D. Not very often
12.5	23.3	23.3	37.0	13.2	21.5	E. Almost never
26	33	25	23	52	34	(Number that omitted item)
					72. I enjoy writing reports or compositions.
6.4	12.9	10.6	20.2	8.2	15.7	A. Almost always
12.2	15.9	17.7	22.7	14.0	16.9	B. Most of the time
16.5	17.1	21.9	21.5	18.3	16.5	C. About half the time
27.2	26.1	27.5	20.8	26.7	24.5	D. Not very often
37.7	27.9	22.2	14.7	32.8	26.3	E. Almost never
21	25	26	25	43	32	(Number that omitted item)
					73. Failure to pay attention in class has caused my marks to be lowered.
7.0	3.1	4.1	2.4	8.6	4.3	A. Almost always
14.1	7.4	8.2	3.8	15.1	7.4	B. Most of the time
22.6	12.8	15.4	8.2	22.1	14.6	C. About half the time
36.8	39.9	40.6	36.5	35.0	39.5	D. Not very often
19.5	37.8	31.7	49.0	19.2	34.2	E. Almost never
24	27	22	19	51	33	(Number that omitted item)
					74. I consider a very difficult assignment a challenge to my abilities.
10.8	14.3	19.3	26.3	13.5	15.6	A. Almost always
24.7	28.6	33.5	35.5	25.7	27.4	B. Most of the time
30.8	27.9	27.6	23.0	28.6	27.5	C. About half the time
23.8	21.7	15.0	12.0	22.6	22.3	D. Not very often
9.9	7.5	4.9	3.2	9.7	7.2	E. Almost never
29	44	28	33	58	52	(Number that omitted item)
					75. I do my assignments so quickly that I don't do my best work.
8.2	3.3	5.3	2.1	8.9	3.7	A. Almost always
16.8	7.8	12.9	6.0	16.9	8.9	B. Most of the time
27.2	18.9	23.9	17.3	26.5	20.5	C. About half the time
35.3	49.5	44.5	52.9	34.9	46.7	D. Not very often
12.6	20.6	13.5	21.8	12.9	20.2	E. Almost never
28	30	27	23	52	34	(Number that omitted item)
					76. I have missed assignments or other important things that the teacher has said, because I was not paying attention.
4.0	1.1	1.8	0.8	4.7	1.9	A. Almost always
8.5	3.0	4.5	1.6	10.2	3.8	B. Most of the time
18.8	8.1	11.2	5.5	19.5	9.6	C. About half the time
45.0	43.8	48.9	42.5	43.1	44.2	D. Not very often
23.7	44.0	33.7	49.7	22.5	40.5	E. Almost never
25	23	21	19	45	26	(Number that omitted item)
					77. My teachers have criticized me for turning in a sloppy assignment.
2.9	0.9	1.6	0.8	3.7	1.2	A. Almost always
6.3	1.2	3.8	0.7	7.0	1.3	B. Most of the time
11.9	2.4	8.0	1.8	12.3	2.9	C. About half the time
37.8	19.6	36.7	16.4	36.6	21.2	D. Not very often
41.1	76.0	50.0	80.4	40.4	73.4	E. Almost never
21	17	22	14	42	21	(Number that omitted item)
					78. Unless I really like a course, I do only enough to get by.
21.0	8.6	12.4	5.1	20.2	10.1	A. Almost always
21.9	11.5	16.3	8.1	21.5	12.2	B. Most of the time
23.2	19.7	21.1	15.1	22.1	19.3	C. About half the time
23.3	33.2	29.7	34.5	24.0	32.9	D. Not very often
10.6	27.1	20.6	37.2	12.2	25.6	E. Almost never
26	28	22	19	43	33	(Number that omitted item)
					79. I have difficulty with the mechanics of English composition.
22.5	10.8	10.8	5.0	20.1	11.2	A. Almost always
21.1	13.0	15.0	7.8	19.6	13.9	B. Most of the time
24.1	23.6	24.2	16.7	25.0	22.7	C. About half the time
22.2	34.2	32.3	36.5	23.6	32.2	D. Not very often
9.8	18.4	17.7	34.1	11.8	20.0	E. Almost never
23	29	24	19	39	31	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents	
M	P	M	P	M	P	
					80. In class I can't seem to keep my mind on what the teacher is saying.
6.9	3.6	2.8	1.6	7.9	4.3	A. Almost always
14.5	6.8	7.0	3.1	14.3	8.1	B. Most of the time
27.1	19.1	20.1	14.5	26.1	20.9	C. About half the time
39.4	49.6	51.2	53.9	39.2	46.7	D. Not very often
12.1	20.8	19.0	27.0	12.5	20.0	E. Almost never
23	23	20	18	39	26	(Number that omitted item)
					81. I get behind in my school assignments.
4.8	1.6	2.4	1.1	5.9	2.2	A. Almost always
9.9	2.3	5.4	2.4	10.2	3.8	B. Most of the time
18.0	7.9	13.4	6.8	19.2	9.6	C. About half the time
43.2	40.2	44.2	38.7	42.6	42.8	D. Not very often
24.1	47.9	34.6	51.1	21.8	41.5	E. Almost never
19	20	19	15	36	26	(Number that omitted item)
					82. My grades on written examinations or reports have been lowered because of careless errors in spelling, grammar, or punctuation.
8.6	3.8	6.7	3.2	8.5	4.3	A. Almost always
15.0	6.8	12.1	5.3	15.2	7.2	B. Most of the time
23.1	15.8	20.2	13.3	23.3	16.7	C. About half the time
35.1	38.7	37.3	36.5	34.8	38.7	D. Not very often
18.2	34.9	23.7	41.7	18.2	33.1	E. Almost never
20	22	21	17	40	27	(Number that omitted item)
					83. Slow reading holds me back in my school work.
9.0	4.8	6.4	4.1	9.1	5.4	A. Almost always
11.7	6.4	8.0	5.0	11.1	6.7	B. Most of the time
15.3	10.3	12.2	9.7	15.9	11.7	C. About half the time
27.7	27.9	27.3	25.3	28.6	28.3	D. Not very often
36.3	50.7	46.2	55.9	35.3	48.0	E. Almost never
19	20	21	17	33	24	(Number that omitted item)
					84. I pronounce the words to myself as I am reading.
18.7	23.2	15.7	17.7	18.7	22.7	A. Almost always
21.7	24.5	16.9	17.1	21.8	23.3	B. Most of the time
23.7	19.9	18.8	16.7	22.6	19.7	C. About half the time
19.1	15.5	20.1	17.0	18.4	16.0	D. Not very often
16.9	16.9	28.4	31.5	18.4	18.2	E. Almost never
25	33	26	26	40	32	(Number that omitted item)
					85. I feel that I am taking courses that will not help me much in an occupation after I leave school.
14.7	15.2	12.0	11.0	14.5	14.6	A. Almost always
18.4	12.2	10.3	8.0	17.7	12.5	B. Most of the time
20.8	13.2	13.9	11.4	20.3	13.9	C. About half the time
24.4	20.0	24.1	22.1	24.1	20.7	D. Not very often
21.6	39.3	39.8	47.5	23.4	38.2	E. Almost never
33	48	31	34	54	41	(Number that omitted item)
					86. When studying for a test, I am able to pick out important points to learn.
14.9	20.1	24.3	28.5	17.9	22.3	A. Almost always
34.9	39.0	44.5	45.7	35.5	37.4	B. Most of the time
30.0	26.0	22.0	19.1	27.8	25.7	C. About half the time
14.4	10.6	6.9	5.0	13.2	10.4	D. Not very often
5.8	4.3	2.2	1.6	5.6	4.2	E. Almost never
33	41	27	21	61	41	(Number that omitted item)
					87. I don't seem to be able to concentrate on what I read. My mind wanders and many things distract me.
11.9	9.1	6.7	5.0	11.4	10.0	A. Almost always
18.2	12.4	12.8	8.8	18.7	13.6	B. Most of the time
29.4	29.6	29.3	28.1	29.3	28.4	C. About half the time
30.4	36.9	38.3	43.8	29.8	36.2	D. Not very often
10.1	12.0	12.9	14.3	10.8	11.8	E. Almost never
32	50	37	34	63	48	(Number that omitted item)
					88. I keep up to date on my assignments by doing my work every day.
19.0	40.5	27.4	41.3	18.3	34.9	A. Almost always
35.1	36.2	37.7	38.4	33.3	37.5	B. Most of the time
25.4	14.8	21.8	13.4	26.6	17.2	C. About half the time
14.9	6.1	9.8	5.2	15.3	7.7	D. Not very often
5.6	2.4	3.3	1.8	6.6	2.7	E. Almost never
32	37	31	25	62	37	(Number that omitted item)
					89. I have trouble remembering what I read.
10.1	10.4	4.9	5.1	9.6	11.2	A. Almost always
17.6	14.4	10.4	9.9	16.5	14.3	B. Most of the time
23.3	24.5	20.4	22.0	23.4	24.0	C. About half the time
33.0	35.4	42.2	43.9	33.5	34.9	D. Not very often
16.0	15.4	22.2	19.1	17.0	15.6	E. Almost never
35	48	38	38	66	49	(Number that omitted item)
					90. I read material over and over again without really understanding what I have read.
7.9	8.4	2.6	3.1	7.8	8.9	A. Almost always
12.5	10.8	5.9	5.8	12.4	11.7	B. Most of the time
19.9	19.0	13.6	14.5	19.5	19.1	C. About half the time
36.5	39.5	43.9	45.6	35.6	38.8	D. Not very often
23.2	22.4	34.1	31.0	24.7	21.5	E. Almost never
38	61	46	47	69	55	(Number that omitted item)

Schooling

					91. Which *one* of the following high school programs or curriculums is *most like* the one that you are taking? *If you have not yet been assigned to a program, which do you expect you will take?*
34.6	21.7	12.1	11.6	30.0	22.1	A. **General**—*a program that does not necessarily prepare you either for college or for work, but in which you take subjects required for graduation and many subjects that you like.*
25.4	19.0	79.1	74.8	34.9	26.8	B. **College Preparatory**—*a program that gives you the training and credits needed to work toward a regular Bachelor's degree in college.*
9.3	51.8	3.0	11.1	9.5	43.1	C. **Commercial or Business**—*a program that prepares you to work in an office; for example, as a secretary or bookkeeper.*
20.2	4.3	2.7	0.7	16.3	4.5	D. **Vocational**—*a program that prepares you to work in a shop or factory, or to enter a trade school, or become an apprentice after high school.*
6.3	0.4	1.4	0.1	5.1	0.4	E. **Agriculture**
4.2	2.9	1.7	1.6	4.2	3.1	F. A program very different from the above.
22	31	17	14	48	38	(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents	
M	P	M	P	M	P
42.5	43.1	42.2	42.9	36.6	38.5
21.9	23.8	25.3	25.8	22.2	22.6
10.8	10.1	11.1	10.5	11.6	10.7
9.2	8.5	7.8	7.8	10.2	9.7
6.0	5.8	5.6	5.0	7.4	6.9
9.7	8.6	8.1	7.9	12.0	11.5
17	21	11	14	23	18

92. How many times have you changed schools since starting the 1st grade (not counting promotions from one school to another)?

A. Never
B. Once
C. Twice
D. Three times
E. Four times
F. Five or more times

(Number that omitted item)

42.5	43.4	42.2	43.0	37.3	38.9
5.7	5.3	5.4	4.9	8.6	8.2
6.5	4.7	5.8	4.7	7.3	5.9
6.8	5.5	5.7	4.9	7.7	6.5
8.3	8.2	8.2	8.3	9.2	8.9
30.2	32.9	32.6	34.2	29.9	31.6
17	21	13	10	30	20

93. When was the last time you changed schools (not counting promotions from one school to another)?

A. I have not done this.
B. About one year ago
C. About two years ago
D. About three years ago
E. About four years ago
F. About five or more years ago

(Number that omitted item)

4.4	4.2	4.2	3.9	4.4	4.2
33.3	34.6	37.1	37.7	32.7	32.7
51.7	53.6	53.4	54.1	51.6	53.8
9.0	6.7	4.7	3.9	9.3	8.1
1.2	0.9	0.6	0.3	1.3	1.1
0.3	0.1	0.1	0.	0.6	0.2
25	28	19	20	34	23

94. How old were you when you started the first grade?

A. Four years old or younger
B. Five years old
C. Six years old
D. Seven years old
E. Eight years old
F. Nine years old or older

(Number that omitted item)

88.5	92.1	93.8	94.9	86.9	91.3
6.3	4.7	3.9	3.2	6.6	4.9
2.9	1.9	1.4	1.0	3.4	2.1
1.0	0.4	0.3	0.2	1.3	0.6
0.4	0.3	0.2	0.2	0.9	0.4
0.8	0.6	0.3	0.4	0.9	0.8
20	25	13	13	32	24

95. Since you started the first grade, how many full semesters of school have you missed?

A. None
B. One semester
C. Two semesters
D. Three semesters
E. Four semesters
F. Five semesters or more

(Number that omitted item)

10.2	10.1	13.5	10.0	9.6	7.9
35.8	38.1	46.9	43.5	35.9	33.5
27.8	27.0	24.5	27.4	26.6	28.9
14.0	12.5	9.1	11.1	14.0	14.8
6.7	6.5	3.4	4.8	6.9	8.2
5.5	5.8	2.6	3.2	7.0	6.7
27	38	19	20	48	39

96. How many days were you absent from school in the last school year (September 1958 to June 1959)?

A. None
B. One to four days
C. Five to nine days
D. Ten to fourteen days
E. Fifteen to nineteen days
F. Twenty or more days

(Number that omitted item)

4.2	0.9	1.0	0.3	4.7	1.1
29.3	18.4	13.9	9.8	28.2	20.4
34.1	33.0	29.5	26.6	32.4	32.8
20.5	26.7	27.7	28.8	20.7	24.3
8.2	14.8	17.7	21.0	8.9	14.7
3.7	6.2	10.1	13.4	5.0	6.6
23	31	19	25	44	30

97. On the average, how many hours do you study each week? *Include study periods in school as well as studying done at home.*

A. None
B. About 1 - 4 hours per week
C. About 5 - 9 hours per week
D. About 10 - 14 hours per week
E. About 15 - 19 hours per week
F. About 20 or more hours per week

(Number that omitted item)

Items 98-104. Starting with courses taken in the ninth grade, how many semesters (half-years) of each of the following kinds of courses have you taken? *Include those which you are taking now.*

3.7	4.5	0.6	0.7	4.4	4.3
37.0	49.3	12.4	22.8	34.8	48.4
29.4	30.3	24.9	37.0	29.3	30.5
4.3	2.4	4.5	3.6	4.7	2.4
13.1	8.9	23.7	23.3	13.0	9.7
12.4	4.6	33.9	12.6	13.7	4.7
24	24	16	19	33	22

98. Science courses (biology, chemistry, general science, physics, etc.)

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

62.8	51.8	29.1	18.4	54.8	47.7
18.5	21.4	17.9	17.0	19.4	23.0
12.0	17.6	31.9	32.1	15.6	16.6
1.4	1.1	2.2	2.4	2.0	1.3
2.6	3.5	8.4	10.2	3.8	4.4
2.7	4.6	10.6	19.9	4.4	7.1
26	29	17	17	43	29

99. Foreign languages (French, German, Spanish, Latin, etc.)

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

1.8	0.7	0.3	0.2	2.0	1.1
13.5	11.6	6.3	5.3	18.7	13.9
32.7	33.4	27.2	27.6	32.8	34.4
7.7	7.3	7.5	7.6	8.2	7.9
19.7	21.6	27.7	28.7	18.6	19.4
24.5	25.4	31.0	30.6	23.6	23.2
26	32	18	23	47	32

100. Social studies (history, civics, government, economics, etc.)

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

1.8	0.6	0.4	0.3	2.1	1.0
5.3	3.0	1.6	1.0	6.6	4.1
23.8	21.9	11.6	11.6	24.4	25.6
5.3	3.4	2.1	1.6	5.6	4.0
11.7	10.3	5.8	4.5	10.6	9.1
52.2	60.8	78.4	81.0	50.8	56.2
25	27	14	11	40	26

101. English courses (grammar, composition, literature, etc.)

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

23.2	6.6	33.1	15.4	24.6	8.9
40.9	21.5	48.9	44.7	42.4	28.1
20.9	23.0	12.0	18.8	19.6	23.9
4.3	5.7	1.4	2.6	4.1	5.6
5.7	12.3	2.6	7.4	4.7	11.3
5.0	30.9	2.0	11.1	4.5	22.1
25	32	16	18	46	27

102. Business or commercial courses (typing, bookkeeping, shorthand, business law, commercial arithmetic, etc.)

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

22.5	81.3	46.7	82.0	29.3	81.9
24.2	9.7	27.2	9.8	26.0	9.5
23.0	4.4	13.6	4.1	21.1	4.2
5.1	0.6	2.1	0.4	4.8	0.6
9.3	1.6	4.5	1.7	7.4	1.4
15.9	2.4	5.9	2.0	11.4	2.4
24	35	19	21	45	37

103. Vocational, shop, or agricultural courses

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

12.0	19.8	1.9	3.2	10.5	16.2
26.8	37.6	7.1	13.6	24.9	36.6
26.8	26.7	17.3	33.6	25.1	27.9
5.1	2.2	5.2	4.3	6.1	2.9
13.1	8.6	17.6	25.4	13.7	10.2
16.3	5.0	50.8	19.9	19.8	6.2
28	34	18	20	48	37

104. Mathematics courses (algebra, geometry, trigonometry, etc.) Do *not* count commercial arithmetic or shop mathematics.

A. None
B. 1
C. 2
D. 3
E. 4
F. 5 or more

(Number that omitted item

84.6	89.1	79.5	89.1	81.0	86.8
7.3	5.2	9.7	6.3	7.8	6.2
3.8	2.3	4.6	2.2	4.7	2.8
1.5	0.9	2.1	0.9	2.5	1.3
1.1	0.7	1.2	0.6	1.4	1.0
1.8	1.8	2.8	0.9	2.5	2.0
34	73	19	27	58	67

105. Has calculus been included in any mathematics course you have ever taken, or are now taking?

A. No
B. Yes, for a period of about 2 weeks.
C. Yes, for a period of about 1 month.
D. Yes, for a period of about 2 months.
E. Yes, for a period of about 3 months.
F. Yes, for an entire semester.

(Number that omitted item)

Items 106-113. The following questions ask you to report your grades in courses you have taken in the ninth grade or later. *Please consider only semester grades. If you have not taken any courses in the topic, skip the item.* In these questions choose the one answer that best describes your grades.

[If your school does not use letter grades, please use the following equivalents:

For a grade of **A**: Excellent; 90-100
For a grade of **B**: Good; 80-89
For a grade of **C**: Average; 70-79
For a grade of **D**: Fair; 60-69
For a grade **below D**: Failing; 59 or lower]

3.4	6.3	10.7	12.7	4.7	5.5
8.1	10.9	13.9	13.9	9.2	10.1
20.3	24.9	25.5	28.8	21.8	23.6
36.6	35.8	33.0	31.6	34.2	36.5
27.5	19.5	15.7	12.1	26.5	21.4
4.1	2.7	1.1	1.0	3.6	2.8
41	100	20	24	67	75

106. My grades in *mathematics* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

2.7	5.4	9.7	12.5	3.5	5.1
9.2	11.1	14.8	15.0	10.4	11.3
22.5	27.5	29.7	33.8	23.9	25.7
39.3	37.0	34.5	31.4	37.4	38.2
23.1	17.4	10.6	6.5	22.2	17.9
3.1	1.8	0.7	0.7	2.6	1.7
59	115	25	30	90	93

107. My grades in *science courses* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

5.5	9.5	10.5	18.4	6.6	10.2
6.5	12.1	11.7	17.1	9.7	12.4
17.5	26.2	23.7	29.7	19.9	26.3
28.3	29.5	29.8	24.6	28.1	28.9
26.4	16.9	18.8	8.6	22.8	16.3
15.8	5.7	5.4	1.6	12.8	5.8
664	1043	509	321	885	852

108. My grades in *foreign languages* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

3.0	6.5	12.5	18.5	4.7	6.3
9.6	12.5	17.3	19.5	11.6	13.2
23.8	28.6	32.9	35.6	25.2	27.7
36.7	34.1	29.6	21.8	35.0	33.6
23.7	16.4	7.2	4.4	20.1	16.8
3.2	1.8	0.5	0.3	3.3	2.3
47	60	33	25	83	52

109. My grades in *history* and *social studies courses* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

1.9	6.7	7.5	18.7	2.9	7.1
7.5	15.6	14.1	22.3	9.5	16.1
19.9	31.7	31.1	36.2	22.8	31.3
38.3	34.9	35.0	20.0	36.4	33.7
28.0	10.4	11.5	2.7	24.6	10.9
4.3	0.7	0.8	0.1	3.9	0.9
49	65	45	44	86	63

110. My grades in *English courses* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

9.1	9.7	15.8	22.3	9.7	9.8
16.9	18.1	18.8	23.8	16.7	18.9
30.1	32.1	33.1	33.2	29.2	31.2
31.2	30.4	26.7	18.2	31.2	29.7
10.9	8.3	5.1	2.1	10.9	8.7
1.7	1.4	0.7	0.4	2.2	1.7
340	1183	852	1109	596	1045

111. My grades in *vocational courses* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

4.9	10.4	13.3	23.5	6.1	10.2
12.3	17.1	15.5	18.7	12.2	16.8
24.7	32.1	30.1	32.6	25.7	31.2
36.1	30.2	31.7	21.0	35.4	31.1
18.6	9.2	9.1	3.5	17.1	9.6
3.5	1.0	1.3	0.6	3.5	1.1
395	245	852	462	637	296

112. My grades in *business* or *commercial courses* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

2.5	3.3	4.3	6.5	3.2	3.3
7.1	10.2	12.9	17.4	8.1	10.5
20.7	31.5	33.2	42.9	23.1	30.4
45.7	43.2	40.1	29.2	42.2	43.1
23.5	11.2	8.8	3.5	21.6	12.0
1.5	0.5	0.8	0.5	1.8	0.8
66	84	66	62	121	98

113. My grades in *all courses starting with the ninth grade* have been:

A. All A's or equivalent
B. Mostly A's or equivalent
C. Mostly A's and B's or equivalent
D. Mostly B's and C's or equivalent
E. Mostly C's and D's or equivalent
F. Mostly D's or below or equivalent

(Number that omitted item)

Guidance

Items 114-117. How many times have you discussed each of the following with your teachers or school principal in the past school year?

Noncollege Respondents M	Noncollege Respondents P	College Respondents M	College Respondents P	Non-respondents M	Non-respondents P	
						114. Colleges or college plans
42.6	43.8	13.4	12.7	36.2	40.4	A. None
18.6	19.0	13.1	14.7	17.5	18.5	B. One
16.4	15.8	19.2	18.7	16.5	16.0	C. Two
9.9	9.6	16.6	17.4	11.0	10.0	D. Three
4.4	4.3	9.4	10.4	5.4	4.9	E. Four
8.1	7.6	28.3	26.1	13.3	10.1	F. Five or more
26	32	23	21	48	28	(Number that omitted item)
						115. Jobs or occupations after high school
33.1	29.6	42.3	43.0	34.6	32.8	A. None
21.3	23.1	17.3	17.8	21.0	22.4	B. One
20.9	20.2	15.9	15.6	19.3	19.2	C. Two
10.8	11.5	10.0	9.5	10.4	10.9	D. Three
5.1	5.8	4.6	5.2	5.0	5.2	E. Four
8.7	9.9	9.9	8.9	9.6	9.6	F. Five or more
29	37	28	27	60	40	(Number that omitted item)
						116. Your high school work
26.0	30.2	22.9	28.6	23.7	27.1	A. None
18.1	20.9	17.0	18.7	17.6	20.0	B. One
21.3	18.8	18.8	17.8	20.8	18.6	C. Two
12.8	11.4	13.0	11.9	13.5	12.1	D. Three
7.3	6.3	7.5	6.6	7.4	7.0	E. Four
14.5	12.5	20.9	16.5	17.1	15.2	F. Five or more
32	41	28	29	60	45	(Number that omitted item)
						117. Personal problems
67.6	70.8	69.2	70.7	62.4	67.1	A. None
13.4	13.7	13.0	12.7	14.1	13.6	B. One
8.0	6.5	7.8	7.1	9.4	7.6	C. Two
4.5	3.2	3.9	3.3	5.5	3.8	D. Three
2.3	1.8	1.8	1.8	3.0	2.5	E. Four
4.3	4.0	4.4	4.3	5.5	5.4	F. Five or more
27	37	27	22	52	36	(Number that omitted item)

Items 118-121. How many times have you discussed each of the following with your school counselor in the past school year?

						118. Colleges or college plans
31.9	35.1	19.8	21.7	30.5	34.7	A. We have no school counselor.
32.5	31.8	13.0	12.2	28.1	29.4	B. None
15.8	14.7	16.0	15.9	15.1	13.9	C. One
9.0	8.0	15.3	15.3	10.4	8.7	D. Two
4.7	4.7	12.1	12.7	6.2	5.5	E. Three
6.2	5.6	23.7	22.2	9.6	7.8	F. Four or more
34	42	27	28	61	47	(Number that omitted item)
						119. Jobs or occupations after high school
29.6	32.0	34.2	36.6	31.7	33.7	A. We have no school counselor.
30.0	28.9	30.6	30.3	30.1	29.2	B. None
19.7	18.8	14.4	14.1	17.5	17.3	C. One
10.7	9.6	9.5	7.8	10.1	9.9	D. Two
5.0	5.3	5.3	5.2	5.0	4.7	E. Three
5.0	5.5	6.0	6.0	5.5	5.1	F. Four or more
43	62	46	44	73	67	(Number that omitted item)
						120. Your high school work
30.1	34.5	29.0	33.4	29.2	34.2	A. We have no school counselor.
29.6	30.8	25.0	27.4	27.7	28.6	B. None
17.6	16.9	18.4	17.4	17.5	16.2	C. One
10.7	8.2	12.0	9.4	11.4	9.2	D. Two
5.1	4.5	6.4	5.6	5.9	5.3	E. Three
6.9	5.1	9.3	6.8	8.3	6.4	F. Four or more
46	64	43	43	82	75	(Number that omitted item)
						121. Personal problems
43.0	47.8	47.9	49.9	43.6	46.4	A. We have no school counselor.
41.0	40.5	37.9	38.2	37.1	37.8	B. None
7.7	5.6	6.5	5.9	8.5	7.0	C. One
3.3	2.3	3.2	2.2	4.0	3.1	D. Two
1.6	1.4	1.5	1.2	2.7	1.8	E. Three
3.4	2.4	3.1	2.7	4.1	4.0	F. Four or more
39	56	38	37	75	63	(Number that omitted item)

Items 122-129. How many times have you discussed your plans for after high school with each of the following people?

						122. Father
15.0	17.1	7.1	9.0	14.9	17.6	A. None
9.8	9.5	4.1	4.7	8.9	9.5	B. One
11.6	10.7	6.5	6.5	10.5	9.6	C. Two
9.5	8.5	7.3	6.3	9.6	7.9	D. Three
5.6	5.4	5.1	5.1	5.4	5.1	E. Four
48.4	48.9	69.9	68.4	50.7	50.3	F. Five or more
37	47	33	33	68	57	(Number that omitted item)
						123. Mother
7.7	3.3	3.0	1.7	8.0	4.4	A. None
8.2	4.2	3.3	1.8	8.2	4.9	B. One
12.1	6.9	6.2	3.2	11.4	6.6	C. Two
11.2	7.9	7.7	4.7	10.4	7.3	D. Three
7.6	6.4	5.9	5.0	7.5	6.3	E. Four
53.2	71.2	73.9	83.5	54.6	70.5	F. Five or more
35	34	27	24	69	44	(Number that omitted item)
						124. Brother or sister
37.1	26.7	36.3	26.1	35.3	26.1	A. None
13.5	11.5	10.6	9.2	13.1	11.2	B. One
14.5	13.6	12.0	11.0	14.2	12.5	C. Two
10.3	11.5	9.6	10.3	10.3	11.4	D. Three
6.3	8.9	6.1	8.1	6.3	9.2	E. Four
18.4	27.8	25.4	35.4	20.8	29.6	F. Five or more
52	73	74	73	104	76	(Number that omitted item)
						125. School counselor
46.9	47.9	29.4	29.9	44.4	47.4	A. None
18.4	19.3	14.0	15.7	16.9	17.6	B. One
14.9	14.0	16.0	15.3	14.5	13.2	C. Two
8.4	8.1	12.1	12.2	9.5	8.5	D. Three
4.0	4.0	7.3	8.4	4.9	5.0	E. Four
7.4	6.7	21.3	18.5	9.8	8.3	F. Five or more
45	65	54	53	85	70	(Number that omitted item)

Noncollege Respondents M	Noncollege Respondents P	College Respondents M	College Respondents P	Non-respondents M	Non-respondents P	
						126. Teachers, principal, or assistant principal (not the school counselor)
40.0	36.7	23.7	20.8	37.4	36.5	A. None
20.4	22.6	16.5	18.1	19.1	21.4	B. One
17.7	17.8	19.2	19.4	17.1	17.1	C. Two
9.2	9.5	13.1	13.4	10.1	9.7	D. Three
4.1	5.0	7.4	9.0	5.2	5.1	E. Four
8.7	8.3	20.2	19.4	11.1	10.2	F. Five or more
43	52	42	35	77	52	(Number that omitted item)
						127. Clergyman (minister, priest, rabbi, etc.)
71.6	71.0	63.0	59.1	68.3	67.7	A. None
11.7	13.3	14.3	16.8	12.6	13.4	B. One
7.3	6.9	9.3	9.7	7.4	7.2	C. Two
3.7	3.1	4.8	5.2	4.5	3.8	D. Three
1.8	1.7	2.6	2.5	2.1	2.1	E. Four
3.9	3.9	6.1	6.8	5.0	5.9	F. Five or more
45	60	46	36	91	60	(Number that omitted item)
						128. Friends my own age
7.2	2.2	3.5	1.4	7.5	2.6	A. None
6.9	3.4	3.4	1.2	7.4	3.3	B. One
13.8	7.5	8.4	4.1	12.8	8.0	C. Two
13.1	9.2	10.1	5.8	12.6	8.6	D. Three
8.2	7.3	6.8	5.7	7.3	7.8	E. Four
50.9	70.4	67.8	81.8	52.5	69.6	F. Five or more
49	63	47	34	88	56	(Number that omitted item)
						129. An adult not listed above
31.5	25.0	24.7	21.4	29.3	23.5	A. None
10.7	9.6	9.4	8.8	11.4	9.5	B. One
15.4	14.5	16.1	14.6	14.5	13.2	C. Two
10.5	10.9	12.5	12.4	11.1	11.0	D. Three
6.5	7.6	6.9	7.8	6.8	8.1	E. Four
25.4	32.4	30.4	35.1	26.8	34.8	F. Five or more
50	62	46	43	81	68	(Number that omitted item)

Part II: FAMILY AND HOME

Directions: The questions in this part are about you and your family. Each question has *one answer* and *only one answer*. Answer each question sincerely and thoughtfully.

Many of the questions in this part are about your parents. If you are not living with both of your parents answer these questions for your step-mother or step-father, guardian(s), or foster parent(s). Following is a list of examples of adults with whom you may be living.

Father and mother
Father and step-mother
Mother and step-father
Foster parents or guardians
Mother and adult male relative (grandfather, uncle, older brother, etc.)
Father and an adult female relative (grandmother, aunt, older sister, etc.)
Grandparents
Brother or sister

In other words, answer for the two adults who are responsible for you. If you live with only one adult who is responsible for you, skip the questions for the other person.

If you live in an institution, mark E in question 130 below and skip to Part III.

Now, go ahead and answer the questions.

						130. Who is the breadwinner in your family, that is, who provides the main source of support?
84.9	84.7	90.7	89.5	81.9	81.5	A. Father
2.5	2.3	1.5	1.6	3.6	3.6	B. Male guardian or male relative
9.3	10.1	6.5	7.8	10.6	11.2	C. Mother
0.9	0.7	0.3	0.4	1.3	1.0	D. Female guardian or female relative
0.2	0.1	0.1	--	0.3	0.3	E. I live in an institution.
2.2	2.0	0.8	0.7	2.4	2.3	F. Someone not listed above
20	24	17	20	52	25	(Number that omitted item)
						131. Does your father work for pay on more than one job?
82.5	83.8	84.9	85.0	81.7	83.2	A. No
15.1	14.3	12.9	13.0	14.6	14.5	B. Yes, two
1.3	1.0	1.2	1.3	2.1	1.2	C. Yes, three
1.0	0.9	1.0	0.7	1.6	1.1	D. Yes, four or more
71	119	78	85	140	130	(Number that omitted item)
						132. Does your father direct or supervise the work of other people? *If he works on more than one job, mark your answer for his most important job. If he is now out of work, or if he is retired, mark your answer for his last job.*
59.6	59.7	42.6	41.1	51.9	53.3	A. No
20.9	20.6	25.4	26.3	22.9	22.1	B. Yes, a few people (up to 4 or 5 people)
7.7	7.9	13.5	13.2	9.5	9.4	C. Yes, many people (from 6 to 19 people)
3.2	2.9	6.4	6.6	4.5	3.6	D. Yes, very many people (20 to 49 people)
3.4	2.7	8.7	8.0	5.4	4.5	E. Yes, 50 people or more
5.2	6.2	3.4	4.8	5.8	7.2	F. I don't know.
86	139	97	98	163	148	(Number that omitted item)
						133. As far as you know, which *one* of the following *best* describes your father's responsibility for money and property on his job? *If he works on more than one job, answer the question for the most important one. If he is temporarily unemployed, or if he is retired, answer the question for his last job.*
19.8	22.4	15.8	17.5	17.5	20.0	A. He is not in charge of any money or property.
15.0	11.9	12.1	9.9	13.2	10.6	B. He is in charge of small amounts of money or property such as daily cash receipts, merchandise, or a few tools or machines.
19.7	17.2	27.0	24.0	21.0	17.3	C. He is in charge of fairly large amounts of money, merchandise, or other property.
14.8	11.9	26.2	24.1	16.9	14.2	D. He is in charge of a great deal of money, merchandise, or property.
90.7	36.7	19.0	24.5	31.4	37.8	E. I don't know.
95	158	102	112	184	166	(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents	
M	P	M	P	M	P
14.5	12.6	12.5	11.5	14.2	12.4
11.6	10.8	10.9	11.2	11.0	10.1
24.7	29.3	25.9	28.3	27.0	30.8
4.9	4.3	4.0	3.6	5.3	5.0
41.9	41.9	45.6	44.6	39.8	39.8
2.5	1.1	1.2	0.8	2.7	1.8
37	47	32	32	73	54

134. Has your mother worked for pay at any time in the last 3 years?

A. Yes, regular part-time work
B. Yes, occasional part-time work
C. Yes, regular full-time work
D. Yes, occasional full-time work
E. No
F. I don't know.
(Number that omitted item)

47.9	45.8	49.3	47.7	45.6	44.3
10.1	9.3	8.5	8.7	9.1	8.9
10.9	10.6	10.5	10.1	11.8	10.8
8.6	8.7	8.2	7.9	9.1	8.4
6.0	6.7	6.2	6.7	6.0	6.8
16.5	19.0	17.3	19.4	18.4	20.8
47	62	49	43	93	67

135. How long has your mother been working for pay?

A. She has not done this, or I don't know.
B. 1 year or less
C. More than 1 but less than 3 years
D. More than 3 but less than 5 years
E. More than 5 but less than 7 years
F. More than 7 years
(Number that omitted item)

10.5	8.1	10.9	8.2	10.1	7.2
7.5	3.3	9.0	4.2	8.2	3.5
7.1	5.4	10.0	10.7	9.2	7.6
53.1	55.2	56.7	56.8	49.4	51.0
21.8	28.0	13.5	20.1	23.2	30.8
52	102	54	59	105	100

136. What was your father's highest rank while in military service?

A. Enlisted man (not a non-commissioned officer)
B. Non-commissioned officer
C. Officer
D. He did not serve.
E. I don't know.
(Number that omitted item)

2.5	2.4	2.6	2.8	2.5	2.4
4.3	4.0	5.0	4.1	4.4	4.1
87.8	89.0	87.9	89.1	86.3	88.3
4.6	4.1	4.3	3.8	5.5	4.7
0.8	0.5	0.2	0.2	1.2	0.6
41	51	31	36	71	59

137. Were your parents born in the United States?

A. My father was born in the U. S. but my mother was not.
B. My mother was born in the U. S. but my father was not.
C. Both my parents were born in the U. S.
D. Both my parents were born outside the U. S.
E. I don't know whether my father or mother was born in the U. S.
(Number that omitted item)

Items 138-147. How active has your father been in any one or more of the following organizations?

9.4	9.9	14.6	17.4	11.6	11.2
9.1	7.5	11.5	10.5	10.0	9.2
19.2	16.5	18.8	18.5	20.1	17.5
10.7	10.3	11.9	10.7	11.3	10.4
14.5	14.9	15.5	15.2	14.2	15.2
37.2	40.9	27.7	27.8	32.7	36.6
82	136	98	106	173	157

138. Church or religious group, teaching Sunday School, or charity work

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.7	2.2	5.4	5.9	3.8	3.0
4.0	3.1	6.2	6.1	5.7	4.0
10.5	9.1	13.3	13.0	12.5	9.9
8.7	7.1	11.7	12.1	9.3	8.5
11.9	12.5	17.0	19.3	12.3	12.8
62.1	65.9	46.4	43.5	56.4	61.8
85	142	104	111	184	163

139. School organizations, such as the school board, Parent-Teacher's Association, etc.

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.3	2.1	3.3	3.4	3.5	2.8
3.5	2.9	4.3	4.3	5.0	4.1
10.0	9.1	10.5	10.9	12.2	11.1
6.6	5.3	8.4	6.1	8.6	5.1
9.1	6.6	10.8	8.6	9.9	7.6
68.6	74.0	62.7	66.7	60.7	69.3
90	157	112	119	192	185

140. Political groups or organizations

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

4.1	3.8	2.6	2.5	4.4	4.2
6.4	6.4	4.6	3.9	7.3	6.9
13.7	16.0	9.5	9.4	14.8	14.8
10.5	9.3	8.5	6.9	10.1	8.2
10.7	9.8	8.0	6.2	9.2	7.8
54.6	54.7	66.7	71.1	54.3	58.2
98	178	115	128	202	198

141. Labor union or trade union activities

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

4.0	3.4	8.3	9.7	6.8	5.5
5.3	5.0	8.6	9.9	7.8	7.3
10.1	9.0	14.0	13.0	12.6	11.2
5.9	3.3	6.7	4.8	6.3	4.1
5.7	3.9	5.4	4.0	6.7	4.2
69.0	75.4	57.1	58.5	59.7	67.8
95	170	118	130	202	200

142. Business or professional association

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.4	2.5	2.7	3.8	3.3	3.3
3.1	2.4	3.1	3.8	4.1	3.3
5.4	3.9	5.0	4.4	7.0	5.3
3.0	1.3	2.5	1.3	4.0	1.5
3.8	1.7	3.2	1.5	4.4	2.0
82.4	88.2	85.6	85.2	77.2	84.6
91	140	92	100	177	161

143. Hobby groups, such as dramatics, band, arts, crafts, etc.

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

5.8	6.7	7.0	9.5	8.0	7.7
6.3	6.1	7.9	7.7	7.5	6.7
10.3	7.9	11.4	9.6	11.7	9.4
4.3	2.2	4.1	2.4	5.1	2.8
4.8	2.6	3.8	2.0	5.1	2.9
68.5	74.4	65.7	68.8	62.8	70.5
98	157	101	105	190	174

144. Sports club, team, or organization

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

5.3	4.6	5.6	5.5	6.6	6.4
5.0	4.9	6.0	5.9	5.8	6.1
9.4	8.5	11.5	10.1	11.4	10.0
5.6	4.6	7.1	6.3	6.4	4.9
5.4	3.4	5.4	4.9	5.2	4.1
70.3	74.1	64.5	67.2	64.7	68.6
79	138	88	99	161	151

145. Social groups (Elks, Moose, etc.)

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.6	2.2	5.3	5.3	3.8	3.6
3.0	2.2	4.7	4.9	4.0	3.8
5.5	3.5	6.9	5.7	6.8	4.8
3.1	1.7	4.0	2.9	4.4	2.4
3.4	2.0	3.3	2.4	4.1	2.5
82.4	88.4	75.8	78.7	76.9	83.0
86	144	90	102	169	162

146. Civic organizations (Rotary, Lions, Kiwanis, etc.)

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.8	2.3	2.3	2.7	3.6	3.3
2.6	1.9	2.2	2.2	3.4	2.5
4.9	4.1	3.4	3.2	5.8	4.9
3.6	2.8	3.2	2.8	3.9	2.8
3.5	3.0	3.8	3.3	3.9	3.3
82.6	85.9	85.2	85.8	79.4	83.3
87	152	92	106	175	164

147. Active military reserve unit or veterans' organization (American Legion, Veterans of Foreign Wars, etc.)

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

Items 148-157. How active has your mother been in any one or more of the following organizations? answers as before.

14.1	14.9	20.2	24.4	16.2	16.1
13.6	13.3	17.1	15.8	14.3	13.6
22.6	21.5	21.7	21.2	21.4	22.0
9.6	9.0	9.7	9.0	9.9	9.1
9.5	10.0	9.6	8.6	9.7	9.8
30.6	31.3	21.8	21.0	28.5	29.5
59	80	64	53	121	97

148. Church or religious group, teaching Sunday School, or charity work

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

5.2	4.8	9.6	10.9	6.4	5.5
7.7	7.7	12.2	13.5	9.4	8.7
18.7	17.4	22.4	23.3	18.4	17.5
11.3	11.3	14.2	14.3	11.8	11.2
11.4	12.5	13.5	12.3	11.4	11.7
45.6	46.3	28.1	25.6	42.7	45.3
58	76	63	59	123	98

149. School organizations, such as the school board, Parent-Teacher's Association, etc.

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

1.7	1.1	1.3	1.5	2.1	1.5
2.1	1.5	1.9	2.2	3.0	2.3
6.4	4.4	5.8	5.6	7.5	5.7
4.8	2.9	5.5	3.9	5.7	3.5
6.1	3.5	6.9	5.2	6.2	4.3
78.9	86.6	78.6	81.5	75.6	82.7
56	74	60	53	122	99

150. Political groups or organizations

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

1.1	0.8	0.4	0.5	1.5	0.9
1.6	1.0	0.7	0.5	2.1	1.5
4.2	3.1	2.0	1.6	4.9	3.3
3.3	2.5	2.2	1.4	4.1	2.5
3.4	2.8	2.7	2.4	4.4	3.2
86.4	89.8	91.9	93.6	82.9	88.6
61	92	65	59	122	106

151. Labor union or trade union activities

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.1	1.7	2.0	2.4	2.5	2.5
2.0	2.0	2.8	3.4	3.1	3.1
5.2	3.7	5.0	4.9	6.2	5.3
3.0	1.7	2.6	2.1	4.0	2.1
3.3	1.5	2.7	1.8	4.0	2.2
84.5	89.3	84.8	85.3	80.3	84.9
58	85	65	65	128	110

152. Business or professional association

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.5	2.6	3.4	5.1	2.9	3.2
3.6	3.2	4.6	5.8	4.3	4.0
6.7	6.1	8.6	8.2	8.0	6.8
3.2	1.6	3.8	2.1	4.4	2.0
3.2	1.6	3.2	1.6	3.9	2.1
80.7	84.9	76.3	77.2	76.6	81.9
58	65	46	43	101	84

153. Hobby groups, such as dramatics, band, arts, crafts, etc.

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

2.5	2.6	2.8	3.2	3.5	3.0
3.1	2.8	3.4	3.5	3.8	3.3
5.0	3.7	4.7	4.1	6.8	4.7
2.8	1.2	2.6	1.0	3.7	1.8
2.6	1.2	2.1	1.1	3.5	1.7
84.1	88.5	84.5	87.2	78.7	85.5
48	62	45	40	102	83

154. Sports club, team, or organization

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

3.4	3.5	5.1	6.2	4.4	4.4
4.3	4.5	6.1	6.1	5.3	5.0
7.6	5.7	9.0	8.1	8.3	6.9
3.7	2.5	3.9	3.5	4.8	2.9
3.2	1.9	3.1	3.0	3.6	2.6
77.7	81.9	72.7	73.1	73.7	78.2
51	84	50	41	110	85

155. Social groups (Eastern Star, D.A.R., etc.)

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

1.6	1.3	2.6	2.8	2.6	1.9
2.1	1.3	2.9	2.6	2.8	1.9
3.9	2.4	5.2	4.1	5.4	3.4
2.6	1.2	2.5	1.6	3.2	1.6
2.3	1.2	2.6	1.6	3.4	1.7
87.5	92.7	84.3	87.2	82.7	89.4
54	62	48	39	101	83

156. Civic organizations (League of Women Voters, etc.)

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

1.7	1.3	1.2	0.9	2.1	1.7
1.8	1.0	1.0	1.0	2.2	1.3
3.0	2.2	1.9	1.8	3.8	2.3
2.0	1.2	1.5	1.2	2.8	1.4
2.1	1.3	1.7	1.2	2.4	1.6
99.3	93.1	92.7	93.9	86.8	91.6
47	59	43	39	96	79

157. Auxiliary of veterans' organization (American Legion, Veterans of Foreign Wars, etc.)

A. Extremely active
B. Very active
C. Fairly active
D. A member, but not very active
E. A member, but rarely active
F. Not a member of any of these organizations
(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents	
N	P	N	P	N	P

Items 158-166. How well does either of your parents speak each of the following languages?

158. French

1.9	2.2	2.0	2.1	2.5	2.6	A. Very fluently
1.2	1.1	1.5	2.0	1.5	1.5	B. Fluently
3.4	3.3	6.0	8.6	4.1	4.6	C. Fairly well
2.9	3.3	6.1	7.2	3.8	3.8	D. Not very well
3.7	3.6	6.7	8.0	3.8	3.5	E. Rather poorly
87.0	86.6	77.7	72.2	84.2	84.1	F. Doesn't speak this language
33	37	40	29	70	49	(Number that omitted item)

159. German

2.9	3.1	2.8	2.9	3.1	3.2	A. Very fluently
2.4	2.3	2.1	2.6	2.1	2.1	B. Fluently
5.4	5.3	6.1	6.6	4.7	5.0	C. Fairly well
4.3	4.1	5.7	5.6	4.2	4.2	D. Not very well
5.0	5.5	6.8	7.5	4.8	4.7	E. Rather poorly
79.9	79.8	76.4	74.7	81.1	80.8	F. Doesn't speak this language
34	37	28	30	75	49	(Number that omitted item)

160. Italian

3.5	4.1	3.1	2.3	3.7	3.8	A. Very fluently
1.4	1.4	1.3	1.1	1.7	1.5	B. Fluently
1.9	1.8	1.9	1.8	2.5	1.9	C. Fairly well
1.5	1.3	1.4	1.4	1.8	1.3	D. Not very well
1.7	1.7	1.8	1.5	2.2	1.6	E. Rather poorly
90.0	89.7	90.5	91.9	88.1	89.9	F. Doesn't speak this language
35	38	27	29	71	49	(Number that omitted item)

161. Spanish or Portuguese

2.0	2.2	1.8	1.7	3.0	2.9	A. Very fluently
1.1	0.8	1.2	1.4	1.7	1.3	B. Fluently
2.2	2.3	3.5	4.7	2.8	3.0	C. Fairly well
1.9	1.8	3.7	4.3	3.0	2.5	D. Not very well
2.2	2.2	4.5	5.0	3.0	2.6	E. Rather poorly
90.7	90.6	85.3	82.9	86.4	87.7	F. Doesn't speak this language
37	38	34	36	73	53	(Number that omitted item)

162. Russian or Slavic

2.0	2.2	2.4	2.0	2.2	2.1	A. Very fluently
1.4	1.2	1.3	1.2	1.5	1.0	B. Fluently
1.5	1.3	2.5	1.8	1.7	1.2	C. Fairly well
1.1	0.8	0.9	1.1	1.2	0.7	D. Not very well
1.0	0.7	1.5	1.3	1.3	0.9	E. Rather poorly
93.0	93.9	92.5	92.6	92.1	93.9	F. Doesn't speak this language
35	44	32	32	72	52	(Number that omitted item)

163. Hebrew or Yiddish

1.4	1.5	3.7	3.7	2.3	2.4	A. Very fluently
0.6	0.4	2.2	1.8	1.3	0.9	B. Fluently
0.7	0.5	2.1	1.9	1.5	1.0	C. Fairly well
0.6	0.3	0.7	0.9	1.0	0.5	D. Not very well
0.5	0.4	0.9	0.8	0.8	0.5	E. Rather poorly
96.2	96.9	90.4	90.8	93.0	94.7	F. Doesn't speak this language
38	37	31	31	72	50	(Number that omitted item)

164. Scandinavian language (Danish, Swedish, or Norwegian)

1.3	1.3	1.2	1.2	1.5	1.5	A. Very fluently
1.0	0.7	0.8	0.7	1.1	0.8	B. Fluently
1.9	1.2	1.8	1.7	1.9	1.4	C. Fairly well
1.4	0.9	1.2	1.3	1.5	1.1	D. Not very well
1.5	1.2	1.9	1.6	1.7	1.3	E. Rather poorly
93.0	94.6	93.1	93.5	92.3	94.0	F. Doesn't speak this language
35	36	32	30	70	51	(Number that omitted item)

165. Oriental language

1.5	1.3	1.3	1.0	2.1	1.8	A. Very fluently
0.8	0.4	0.5	0.5	1.0	0.5	B. Fluently
1.1	0.5	0.5	0.7	1.6	0.8	C. Fairly well
0.9	0.5	0.4	0.5	1.2	0.6	D. Not very well
0.6	0.5	0.6	0.7	1.1	0.6	E. Rather poorly
95.1	96.8	96.7	96.6	93.0	95.7	F. Doesn't speak this language
77	96	78	72	136	105	(Number that omitted item)

166. Some other foreign language

4.4	5.3	4.2	4.2	4.6	4.9	A. Very fluently
2.5	2.4	2.3	1.8	2.5	2.2	B. Fluently
3.5	3.3	3.0	3.4	3.6	3.7	C. Fairly well
2.2	1.9	2.3	2.1	2.9	1.8	D. Not very well
2.4	2.1	2.6	2.2	2.3	1.9	E. Rather poorly
85.0	84.8	85.6	86.3	84.2	85.4	F. Doesn't speak this language
30	35	25	29	63	50	(Number that omitted item)

167. How long have you lived in this community?

2.7	2.9	3.1	2.6	4.8	5.3	A. One year or less
4.2	5.1	5.0	5.2	6.0	6.4	B. More than 1 year, but not more than 3 years
6.7	7.3	7.2	7.4	8.2	8.1	C. More than 3 years, but not more than 5 years
12.2	13.8	13.6	14.0	13.0	14.1	D. More than 5 years, but not more than 10 years
22.2	20.4	24.2	23.4	21.9	20.1	E. More than 10 years, but not all my life
52.0	50.4	46.9	47.4	46.2	45.9	F. All my life
18	17	17	15	39	27	(Number that omitted item)

168. Which one of the following best describes the community in which you lived just before moving to this community?

45.9	47.3	42.2	44.0	39.6	42.7	A. I have lived in this community all my life.
10.2	10.4	11.5	11.4	11.5	11.3	B. In suburban areas, towns, or villages around a city
11.1	10.8	16.7	15.3	14.2	12.7	C. Inside a large city with 100,000 or more people
6.6	6.6	7.6	8.5	8.4	8.0	D. Inside a medium sized city with 25,000 to 100,000 people
11.1	11.8	12.0	11.5	12.8	12.7	E. In a small city or town with 2,500 to 25,000 people (not the suburban area of a city)
15.2	13.1	10.0	9.3	13.6	12.6	F. A farm or village with less than 2,500 people (not the suburban area of a city)
43	63	46	37	82	72	(Number that omitted item)

169. How many different houses or apartments (not counting vacations away from your regular home) has your family lived in, in the last three years?

71.0	73.1	75.1	77.8	65.1	67.8	A. One
15.9	15.8	15.7	14.6	17.1	17.8	B. Two
5.9	5.6	4.8	4.2	8.2	7.2	C. Three
3.2	2.3	1.9	1.4	4.1	2.9	D. Four
1.7	1.2	0.9	0.9	2.3	1.7	E. Five
2.3	1.9	1.6	1.2	3.2	2.6	F. Six or more
95	154	81	86	153	148	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents	
N	P	N	P	N	P

170. Which one of the following best describes the building in which you live?

74.8	76.5	81.2	83.6	71.3	79.3	A. A one-family house
11.6	10.9	8.0	6.9	11.1	10.0	B. A two-family house
3.1	2.6	1.9	1.5	3.5	2.8	C. A small apartment house (3 or 4 families)
3.1	2.3	3.9	2.8	4.0	3.6	D. A large apartment house (5 families or more)
0.9	0.5	0.6	0.5	1.4	0.7	E. A rooming house, hotel, or trailer
6.4	7.2	4.4	4.7	8.7	8.6	F. Something different from the above
19	17	12	14	46	27	(Number that omitted item)

171. If your family is renting your home or the place where you live, about how much are they paying each month?

12.3	12.4	6.0	5.0	12.2	12.8	A. Less than $60
6.8	7.4	4.4	3.6	7.0	7.7	B. $60 to $79
3.3	3.3	2.8	3.1	4.6	4.0	C. $80 to $99
1.6	1.7	2.3	2.1	2.7	2.1	D. $100 to $119
1.3	1.2	2.3	2.6	2.4	2.2	E. $120 or more
74.7	74.0	82.2	83.5	71.1	71.2	F. We have bought (or are buying) our home.
87	133	103	101	169	138	(Number that omitted item)

172. If your family has bought (or is buying) your home, what is its present value?

10.4	8.6	5.1	4.1	9.4	8.4	A. Under $6,000
22.4	21.5	15.7	13.7	19.8	17.5	B. $6000 to $10,000
21.8	20.1	21.7	20.0	20.1	18.5	C. $10,000 to $15,000
15.6	17.6	20.8	24.3	15.8	17.1	D. $15,000 to $22,000
10.2	10.3	21.4	24.0	14.1	13.5	E. More than $22,000
19.6	22.0	15.3	13.9	20.9	25.0	F. We are renting our home.
134	280	131	185	248	305	(Number that omitted item)

173. Please make the best estimate you can of your family's total income for *last year* (1959). *Include money earned by both parents or anyone else in the household who worked.*

6.6	6.1	2.8	3.1	6.3	5.2	A. Less than $3,000
27.8	22.3	19.7	16.6	22.9	17.2	B. $3,000 to $5,999
26.0	17.9	27.4	20.1	22.9	16.0	C. $6,000 to $8,999
10.1	6.6	15.3	11.3	10.6	7.0	D. $9,000 to $11,999
6.4	3.8	16.6	14.0	10.0	6.8	E. $12,000 or more
23.0	43.4	18.2	34.9	27.2	47.9	F. I can't estimate this.
51	69	62	49	130	104	(Number that omitted item)

174. Which of the following best describes your family's finances?

3.5	2.5	1.0	0.8	3.5	2.5	A. Barely able to make a living
17.6	17.8	11.4	10.8	16.9	16.3	B. Have the necessities
67.8	71.1	70.0	71.5	63.5	68.4	C. Comfortable
8.8	7.5	15.3	14.7	12.6	10.3	D. Well-to-do
1.5	0.7	2.0	2.0	2.2	1.9	E. Wealthy
0.8	0.5	0.4	0.2	1.3	0.7	F. Extremely wealthy
39	34	30	19	88	52	(Number that omitted item)

175. From which *one* of the following sources does your family get most of its income?

2.0	1.2	4.2	4.6	3.2	2.7	A. Professional fees
15.2	12.2	19.5	18.5	16.0	13.8	B. Business profits (including profits from a farm)
32.2	35.5	44.2	47.7	34.7	37.3	C. Fixed salary (paid on a weekly, monthly, or yearly basis)
38.2	39.5	23.0	20.9	32.3	33.0	D. Wages (paid on an hourly or daily basis, and depending on the number of hours worked)
2.2	2.0	3.5	2.7	3.1	2.3	E. Commissions or royalties
10.2	9.6	5.7	5.7	10.7	10.9	F. Some other source, not mentioned above
50	63	31	33	98	103	(Number that omitted item)

176. How many books are in your home?

7.2	7.4	2.7	2.2	7.6	7.8	A. None, or very few (0-10)
22.1	22.4	11.3	10.1	22.2	22.2	B. A few books (11-25)
40.4	42.3	36.6	35.3	37.6	38.8	C. One bookcase full (26-100)
19.3	18.1	26.8	26.4	18.9	18.5	D. Two bookcases full (101-250)
8.5	8.2	17.4	20.2	9.8	10.0	E. Three or four bookcases full (251-500)
2.5	1.5	5.2	5.7	3.7	2.8	F. A room full—a library (501 or more)
36	26	22	23	62	37	(Number that omitted item)

Items 177-186. How many of each of the following kinds of magazines do you get regularly at home (by subscription or purchased regularly)?

177. Ladies' magazines, homemaking magazines, or fashion magazines (such as Ladies' Home Journal, McCall's, Redbook, Cosmopolitan, Better Homes and Gardens, Good Housekeeping, House Beautiful, etc.)

34.2	29.2	25.2	19.0	33.7	27.7	A. None
26.2	25.3	24.7	22.2	24.7	25.3	B. One
19.9	18.3	25.6	21.5	20.1	18.2	C. Two
10.5	11.6	13.7	17.5	10.7	12.4	D. Three
3.3	6.5	5.7	9.5	3.9	5.8	E. Four
5.7	9.0	5.2	10.3	6.8	10.5	F. Five or more
34	24	21	17	61	32	(Number that omitted item)

178. Men's magazines or sports magazines (such as Sports Afield, Sports Illustrated, Field and Stream, Esquire, Argosy, True, etc.)

40.4	53.6	38.1	51.4	37.2	51.1	A. None
16.8	23.1	31.0	24.7	27.3	22.9	B. One
17.0	11.8	17.5	13.4	17.8	13.1	C. Two
7.1	4.8	7.2	5.8	8.0	5.2	D. Three
2.9	1.9	2.5	1.9	3.0	2.3	E. Four
5.7	4.7	3.7	2.8	6.7	5.4	F. Five or more
33	29	20	18	64	35	(Number that omitted item)

179. Movie magazines, love stories, detective magazines (Such as Modern Screen, Photoplay, Silver Screen, True Story, Sweetheart Stories, True Romance, Real Detective, Official Detective Stories, True Detective, etc.)

64.4	54.3	78.1	75.1	62.8	52.8	A. None
16.3	18.7	11.4	13.7	15.1	18.6	B. One
8.6	10.6	5.2	5.2	9.2	10.3	C. Two
4.0	5.1	2.1	2.1	4.9	5.8	D. Three
1.8	2.9	0.9	1.0	2.3	2.9	E. Four
4.9	8.4	2.3	2.9	5.6	9.7	F. Five or more
36	27	20	15	62	35	(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents	
M	P	M	P	M	P
40.9	63.9	46.2	64.3	43.6	63.1
25.6	19.2	27.0	20.7	23.7	19.1
14.4	8.0	13.6	8.5	13.8	8.0
7.4	3.4	6.2	2.8	7.0	3.7
3.6	1.5	2.6	1.2	3.9	1.6
8.2	4.0	4.5	2.5	8.1	4.6
37	29	25	23	62	40

180. Mechanics, electronics, aviation, or automobile magazines (such as Popular Mechanics, Mechanix Illustrated, Science and Mechanics, Hot Rod, Motor Trend, Motor Life, etc.)
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

58.9	65.9	70.9	72.8	61.5	66.1
15.7	14.4	12.5	11.9	14.9	14.8
10.7	8.6	7.3	6.4	9.5	8.1
6.5	4.6	4.2	3.6	5.6	4.3
2.8	2.4	2.3	2.1	2.7	2.1
5.4	4.1	2.9	3.1	5.4	4.6
39	30	26	23	69	44

181. Farm magazines (such as Farm Journal, Progressive Farmer, Farm and Ranch, Prairie Farmer, Successful Farmer, etc.)
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

48.2	46.1	30.9	26.8	43.6	42.1
25.4	26.7	29.7	30.5	24.3	25.0
14.1	14.3	21.3	22.0	16.0	16.2
5.7	5.5	10.0	10.6	7.1	6.6
2.2	1.9	3.8	4.6	2.8	3.4
4.5	5.4	4.4	5.3	6.1	6.7
39	33	25	24	74	45

182. News or pictorial magazines (such as Life, Look, Newsweek, Time, U.S. News and World Report, etc.)
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

79.1	85.6	78.3	76.9	72.7	80.2
10.4	8.3	14.8	14.0	12.8	10.5
4.6	2.5	6.2	4.7	6.1	3.8
2.2	0.9	1.8	1.8	3.1	1.7
0.8	0.5	0.9	0.7	1.5	0.9
2.9	2.3	2.1	1.5	3.9	2.8
40	32	28	25	69	44

183. Business magazines (such as Business Week, Nation's Business, etc.)
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

86.1	91.7	88.6	89.4	82.1	87.4
6.5	4.3	6.7	6.5	7.6	6.8
2.8	1.2	2.1	1.7	3.8	2.1
1.4	0.6	0.6	0.6	2.1	0.9
0.7	0.3	0.4	0.2	1.0	0.4
2.4	1.9	1.6	1.5	3.3	2.4
41	33	27	26	68	44

184. Opinion magazines (such as The Nation, The New Republic, The Reporter, The Progressive, etc.).
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

72.8	77.3	64.6	64.0	69.1	74.7
14.4	13.0	19.2	19.3	14.4	13.4
6.8	4.9	9.3	9.6	7.5	5.8
2.1	1.5	3.0	3.5	3.4	2.0
1.0	0.7	0.9	1.2	1.5	0.9
3.0	2.6	2.9	2.5	4.2	3.2
41	36	27	23	72	51

185. Professional or trade journals or magazines
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

84.3	90.4	89.5	91.6	80.3	87.1
7.6	5.0	5.9	5.2	8.6	6.7
2.8	1.5	1.8	1.0	4.1	2.1
1.6	0.6	0.7	0.7	2.2	0.8
0.6	0.4	0.4	0.2	1.2	0.6
3.1	2.0	1.7	1.4	3.7	2.6
38	29	22	20	64	41

186. Science fiction magazines (such as Galaxy, Science Fiction, etc.)
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

Items 187-189. How many of the following do you get regularly at home (by subscription or purchased regularly)?

83.2	86.9	72.6	71.7	77.5	80.8
11.1	9.3	19.0	19.3	12.9	12.4
3.0	2.0	5.3	5.7	5.0	3.7
1.2	0.7	1.5	1.8	2.2	1.4
0.4	0.3	0.6	0.9	0.8	0.5
1.0	0.8	1.0	0.7	1.5	1.2
27	17	16	11	52	28

187. Atlantic Monthly, Harpers, National Geographic, Saturday Review, Fortune, New Yorker
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

37.7	35.4	22.0	19.9	35.3	32.9
39.3	40.6	43.9	44.2	38.1	39.5
16.3	15.9	26.0	27.0	18.1	17.7
6.6	8.1	8.1	9.0	8.6	9.9
27	16	14	11	50	30

188. Reader's Digest, Coronet, Saturday Evening Post
A. None
B. One
C. Two
D. Three
(Number that omitted item)

69.2	72.8	64.9	64.4	67.9	70.6
22.1	19.9	26.0	25.8	21.4	20.7
5.5	4.7	6.8	7.2	6.5	5.5
1.9	1.4	1.5	1.7	2.1	1.7
1.3	1.3	0.8	1.0	2.0	1.5
31	20	18	12	56	33

189. Parents' Magazine, Boys' Life, American Girl, Scouting
A. None
B. One
C. Two
D. Three
E. Four
(Number that omitted item)

Items 190-195. How many of the following articles are in your home?

2.8	2.0	0.8	0.6	3.8	2.4
9.7	9.9	3.4	3.6	9.8	10.3
21.1	24.0	14.1	15.5	17.8	22.4
28.6	30.8	27.4	28.1	25.8	28.7
20.4	21.1	24.9	25.9	20.2	20.2
17.4	12.2	29.3	26.4	22.6	16.0
33	18	15	15	56	28

190. Automatic washer, automatic clothes dryer, electric dishwasher, electric or gas refrigerator, vacuum cleaner, home food freezer (separate from refrigerator)
A. None
B. One
C. Two
D. Three
E. Four
F. Five or six
(Number that omitted item)

1.3	0.4	0.2	0.1	1.6	0.8
6.2	3.6	1.5	0.9	6.2	4.2
8.5	6.1	2.9	3.1	8.8	7.1
16.2	17.8	13.1	11.3	18.3	16.5
65.7	72.1	82.3	84.5	65.1	71.4
34	25	24	18	60	33

11.1	13.9	5.6	8.0	9.9	11.0
19.9	22.0	14.7	15.7	17.7	19.9
24.9	26.0	22.0	23.3	22.5	23.2
22.4	20.5	24.4	23.5	21.8	20.9
13.3	11.8	19.1	19.0	14.9	15.3
8.4	5.7	14.2	10.5	13.2	9.7
33	23	23	17	70	36

27.5	27.7	15.9	12.4	24.9	24.4
26.7	27.1	22.7	20.4	25.6	25.9
22.6	25.8	24.7	25.6	23.5	23.0
13.5	13.9	20.9	23.9	14.8	16.4
6.1	5.3	10.0	12.7	6.9	6.9
3.7	2.1	5.9	5.0	4.7	3.5
40	32	30	20	74	37

9.3	17.1	5.0	8.9	9.6	17.8
16.3	25.8	13.3	19.9	16.5	23.9
34.1	30.1	27.3	28.7	30.6	29.4
21.0	17.0	25.6	22.5	20.9	16.4
9.4	6.4	16.1	13.1	11.1	7.7
9.8	3.6	12.7	6.9	11.3	4.7
29	18	18	12	56	28

16.3	11.7	6.7	5.3	15.9	12.5
30.7	29.2	17.6	18.6	29.6	28.5
30.9	32.0	31.8	31.2	28.8	30.3
22.1	27.1	43.8	44.9	25.8	28.6
34	21	19	14	59	31

4.7	7.9	3.8	6.7	6.9	11.0
9.2	14.2	8.4	13.6	11.5	16.0
10.2	13.5	11.7	14.6	12.2	14.9
12.5	13.9	13.3	15.0	12.9	14.4
8.6	10.2	9.9	11.3	8.5	9.6
54.8	40.2	52.8	38.8	48.0	34.1
32	32	20	21	59	49

25.3	31.8	26.7	32.1	29.2	35.6
16.1	17.0	16.5	16.9	15.8	17.4
16.1	16.5	17.1	16.5	16.8	16.4
13.8	13.3	13.2	12.9	12.6	11.6
9.1	8.5	8.9	8.6	8.4	7.4
19.7	12.9	17.7	13.1	17.1	11.6
33	34	20	22	61	49

8.5	9.9	5.0	4.8	8.4	11.0
38.1	55.4	38.9	49.4	36.5	50.1
35.7	27.0	40.6	36.7	35.2	29.3
12.1	5.7	11.1	7.2	13.3	7.0
3.3	1.3	3.1	1.3	4.1	1.7
2.3	0.7	1.3	0.6	2.5	0.8
29	20	16	12	58	33

15.2	14.7	8.1	9.4	13.3	12.2
15.9	16.4	11.6	12.5	14.7	15.2
23.4	23.3	21.9	22.4	21.3	21.6
19.7	19.8	25.2	24.9	21.5	20.3
17.7	16.7	27.4	26.8	21.1	20.6
8.1	9.1	5.8	4.9	8.1	10.2
40	43	26	23	74	59

95.4	97.8	97.7	97.9	94.2	96.9
2.3	1.9	1.6	1.6	2.6	2.1
1.2	0.5	0.4	0.3	1.5	0.7
0.7	0.3	0.2	0.1	1.1	0.3
0.4	0.1	0.1	0.1	0.6	0.2
27	19	16	13	50	29

191. Telephone, television set, radio, phonograph
A. None
B. One
C. Two
D. Three
E. Four
(Number that omitted item)

192. Sterling silverware, paintings, tapestries, wall-to-wall carpeting, ceiling-to-floor drapes
A. None
B. One
C. Two
D. Three
E. Four
F. Five
(Number that omitted item)

193. Musical instruments, hi-fi or stereophonic set, classical records, art equipment, photo developing equipment
A. None
B. One
C. Two
D. Three
E. Four
F. Five
(Number that omitted item)

194. Tennis racket, golf clubs, hunting equipment, skis, fishing equipment
A. None
B. One
C. Two
D. Three
E. Four
F. Five
(Number that omitted item)

195. A room of my own, my own study desk, a typewriter
A. None
B. One
C. Two
D. Three
(Number that omitted item)

196. How many hand tools (saw, pliers, wire cutters, hammer, wrench, drill, screwdriver, crow bar, etc.) are in your home?
A. Five or less
B. Six to ten
C. Eleven to fifteen
D. Sixteen to twenty
E. Twenty-one to twenty-five
F. Twenty-six or more
(Number that omitted item)

197. How many electrically operated power tools (saw, drill, sander, etc.) are in your home?
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

198. How many cars or station wagons does your family own? *Do not include trucks. Include your own as well as any owned by your parents, or brothers or sisters living in your home.*
A. None
B. One
C. Two
D. Three
E. Four
F. Five or more
(Number that omitted item)

199. What year model is your family's newest car or station wagon? *Do not include trucks.*
A. 1952 or older
B. 1953 or 1954
C. 1955 or 1956
D. 1957 or 1958
E. 1959 or 1960
F. My family does not own a car or station wagon.
(Number that omitted item)

200. Are you a twin, triplet, or quadruplet?
A. No.
B. Yes, I have a twin in this school.
C. Yes, I have a twin who is living, but not in this school.
D. Yes, I am one of triplets or quadruplets, and one or more of the others are in this school.
E. Yes, I am one of triplets or quadruplets, but none of the others is in this school.
(Number that omitted item)

The next questions are about education after high school. Education after high school can be any one of the following:

Vocational Schools: such as schools for barbers, beauticians, electricians, mechanics, technicians, etc. The program may last from a few months to two or three years. Although these schools are sometimes called a college, for the purpose of this questionnaire think of them as Vocational Schools.

Business or Commercial Schools: such as secretarial, stenotyping, or bookkeeping schools. The program may last from a few months to two or three years. Although these schools are sometimes called a college, for the purpose of this questionnaire think of them as Business or Commercial Schools.

Junior College: a two-year college program

Four-year College: has programs leading to a degree, such as Bachelor of Arts, Bachelor of Science, Bachelor of Engineering, etc.

Noncollege Respondents		College Respondents		Non-respondents		
M	F	M	F	M	F	
						201. How many of your brothers or sisters dropped out of high school without graduating?
9.7	9.9	13.4	13.7	10.4	10.1	A. I have no brothers or sisters.
68.5	68.6	80.1	80.2	67.6	65.7	B. None
12.4	11.8	4.3	3.8	12.6	13.0	C. One
4.7	4.7	1.1	1.2	4.4	4.9	D. Two
2.3	2.3	0.5	0.4	2.3	2.7	E. Three
2.5	2.8	0.6	0.7	2.6	3.5	F. Four or more
29	18	14	10	50	27	(Number that omitted item)
						202. How many of your brothers or sisters have ever attended a vocational school?
12.8	14.1	15.2	15.7	13.5	14.1	A. I have no brothers or sisters.
69.1	71.9	75.6	77.3	67.9	70.7	B. None
11.9	10.3	7.0	5.5	11.9	10.5	C. One
3.3	2.2	1.4	1.0	3.7	2.7	D. Two
1.4	0.9	0.4	0.3	1.6	0.9	E. Three
1.6	0.6	0.5	0.2	1.5	1.1	F. Four or more
34	23	16	14	55	35	(Number that omitted item)
						203. How many of your brothers or sisters have ever attended a business or commercial school?
13.9	15.0	15.7	16.0	14.4	15.5	A. I have no brothers or sisters.
72.4	74.8	76.3	78.0	69.9	73.3	B. None
11.0	8.6	6.6	5.1	11.8	9.2	C. One
1.6	1.0	0.8	0.6	2.5	1.2	D. Two
0.7	0.2	0.3	0.2	0.8	0.4	E. Three
0.5	0.2	0.1	0.2	0.6	0.4	F. Four or more
34	27	19	16	56	32	(Number that omitted item)
						204. How many of your brothers or sisters have ever attended a junior college?
15.0	15.8	16.2	16.5	15.3	16.4	A. I have no brothers or sisters.
76.8	77.4	76.5	77.5	73.6	76.4	B. None
6.1	4.9	6.0	5.1	8.0	5.7	C. One
1.3	0.5	1.0	0.6	1.9	0.8	D. Two
0.4	0.2	0.1	0.2	0.7	0.4	E. Three
0.4	0.2	0.2	0.2	0.5	0.3	F. Four or more
38	32	27	21	66	42	(Number that omitted item)
						205. How many of your brothers or sisters have ever attended a four-year college?
14.7	15.9	15.3	15.2	15.1	15.6	A. I have no brothers or sisters.
71.2	71.0	59.3	57.4	66.3	68.5	B. None
11.0	10.7	19.2	21.2	13.1	12.2	C. One
2.0	1.7	4.5	4.4	3.4	2.4	D. Two
0.6	0.4	1.1	1.3	1.2	0.7	E. Three
0.6	0.3	0.5	0.5	0.9	0.6	F. Four or more
52	54	38	34	87	62	(Number that omitted item)

Part III

Directions: The questions in this part are similar to those in some of the earlier parts. Answer each question sincerely and thoughtfully. Each question has *one answer* and *only one answer*.

Some of these questions are again about your parents or the heads of your household. If you live in an institution, skip to question 210. Now, go ahead and answer the questions.

Noncollege Respondents		College Respondents		Non-respondents		
M	F	M	F	M	F	
						206. Which *one* of the following comes *closest* to describing the work of your father (or the male head of your household)? *Mark only one answer. If he works on more than one job, mark the one on which he spends most of his time. If he is now out of work, or if he is retired, mark the one that he did last.*
12.1	9.0	8.0	7.6	9.2	7.9	A. Farm or ranch owner and/or manager
1.0	0.8	0.3	0.2	1.0	0.5	B. Farm or ranch foreman
2.1	2.2	0.7	0.7	2.3	2.5	C. Farm or ranch worker
21.1	22.3	9.7	9.0	17.8	19.0	D. Workman or laborer—such as factory or mine worker, fisherman, filling station attendant, longshoreman, etc.
0.2	0.2	--	0.1	0.4	0.2	E. Private household worker—such as a servant, butler, etc.
1.8	1.7	1.8	1.4	1.7	1.8	F. Protective worker—such as a policeman, detective, sheriff, fireman
1.1	1.3	1.0	0.9	1.5	1.1	G. Service worker—such as barber, beautician, waiter, etc.
9.6	8.9	6.5	5.1	8.1	7.0	H. Semi-skilled worker—such as factory machine operator, bus or cab driver, meat cutter, etc.
22.2	23.1	17.5	16.2	20.0	20.7	I. Skilled worker or foreman—such as a baker, carpenter, electrician, enlisted man in the armed forces, mechanic, plumber, plasterer, tailor, foreman in a factory or mine (but not on a farm), etc.
2.7	2.7	3.6	3.4	2.2	2.3	J. Clerical worker—such as bank teller, bookkeeper, sales clerk, office clerk, mail carrier, messenger, etc.
3.0	3.2	6.7	6.2	3.9	3.7	K. Salesman—such as real estate or insurance salesman, factory representative, etc.
4.8	5.3	10.6	10.5	6.6	6.2	L. Manager—such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
1.2	1.2	4.1	3.9	2.4	1.7	M. Official—such as manufacturer, officer in a large company, banker, government official or inspector, etc.
5.3	5.8	11.3	12.6	8.0	8.7	N. Proprietor or owner—such as owner of a small business, wholesaler, retailer, contractor, restaurant owner, etc.
2.6	2.5	10.2	12.2	4.7	4.9	O. Professional—such as actor, accountant, artist, clergyman, dentist, engineer, lawyer, librarian, scientist, etc.
1.8	1.6	4.5	5.5	2.4	2.2	P. Technical—such as draftsman, surveyor, medical or dental technician, etc.
7.5	8.2	3.5	4.7	7.9	9.7	Q. I don't know.
75	108	32	32	141	125	(Number that omitted item)
						207. If your father (or the male head of your household) has a professional or technical occupation (that is, if you marked O or P in the preceding question), answer this question. If your father does not have a professional or technical occupation, mark A on your answer sheet and go on to the next question. Which *one* of the following professional or technical occupations comes *closest* to describing your father's occupation?
88.4	90.8	80.1	77.5	84.4	86.3	A. My father has an occupation other than professional or technical.
1.8	2.0	2.7	2.9	2.1	1.7	B. Accountant or auditor
0.1	0.1	0.2	0.1	0.1	0.1	C. Actor, musician, entertainer
--	0.1	0.1	0.2	0.1	0.1	D. Architect
0.3	0.2	0.4	0.5	0.5	0.4	E. Armed forces officer
0.1	0.2	0.2	0.2	0.2	0.3	F. Artist, designer, sculptor
--	--	--	0.1	0.1	--	G. Biological scientist
0.3	0.3	0.4	0.5	0.3	0.3	H. Chemist
0.2	0.2	0.3	0.3	0.3	0.3	I. College administrator
0.2	0.3	0.9	1.0	0.7	0.5	J. Clergyman
0.3	0.3	0.8	0.9	0.5	0.4	K. Dentist
0.4	0.2	0.6	0.4	0.3	0.2	L. Draftsman
0.1	--	0.1	0.1	0.1	0.1	M. Economist
0.1	--	0.2	0.2	0.1	0.1	N. Editor or reporter
0.1	0.1	0.2	0.2	0.1	0.1	O. Elected or appointed officer—mayor, senator, judge, etc.
1.5	1.1	3.6	4.4	1.9	2.2	P. Engineer—aeronautical, civil, chemical, electrical, mechanical, etc.
0.3	0.2	1.2	1.5	0.7	0.6	Q. Lawyer (not elected or appointed official)
0.3	0.1	0.1	0.1	0.3	0.1	R. Librarian
0.3	0.2	0.2	0.1	0.3	0.3	S. Mathematician
0.2	0.1	--	0.1	0.2	0.2	T. Nurse
0.2	0.2	0.3	0.4	0.3	0.3	U. Optometrist, osteopath, chiropractor, pharmacist
0.4	0.4	1.4	1.6	0.6	0.6	V. Physician or surgeon
0.2	0.1	0.2	0.1	0.3	0.1	W. Physicist
0.2	0.1	0.2	0.2	0.2	0.3	X. Psychologist
0.1	--	0.1	--	--	--	Y. Sociologist
0.2	0.1	0.2	0.2	0.4	0.2	Z. Social or welfare worker
0.1	0.1	0.1	0.2	0.2	0.1	AA. Statistician
0.2	0.1	0.1	0.1	0.2	0.2	BB. Surveyor
0.4	0.1	0.5	0.6	0.3	0.3	CC. Teacher, elementary school
1.4	0.9	1.7	2.2	1.7	1.2	DD. Teacher, high school
0.4	0.4	0.3	0.2	0.5	0.4	EE. Technician, medical or dental
0.1	--	0.1	0.1	0.1	0.1	FF. Veterinarian
0.5	0.3	0.5	0.8	0.7	0.4	GG. A technical occupation not listed above
0.1	0.1	0.3	0.2	0.2	0.2	HH. A scientific occupation not listed above
0.5	0.3	1.6	1.6	1.1	1.0	II. A professional occupation not listed above
147	183	127	117	269	211	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents			
M	P	M	P	M	P		
56.7	53.3	54.6	52.2	53.2	51.2	A.	Housewife only; she has not worked for pay in the last three years.
0.5	0.3	0.3	0.4	0.5	0.3	B.	Farm or ranch owner and/or manager
0.4	0.3	0.2	0.2	0.5	0.3	C.	Farm or ranch worker
4.3	4.2	2.5	1.7	4.2	3.8	D.	Worker or laborer—such as charwoman, laundry worker, etc.
3.4	3.3	1.6	2.0	3.8	4.0	E.	Private household worker—such as housekeeper, maid, laundress, etc.
0.3	0.2	0.1	0.1	0.3	0.2	F.	Protective worker—such as policewoman, etc.
4.6	5.2	3.3	3.2	4.8	5.3	G.	Service worker—such as beautician, waitress, etc.
6.4	7.6	4.0	3.5	5.8	7.6	H.	Semi-skilled worker—such as factory machine operator, cab driver, etc.
1.7	1.6	1.5	1.5	1.7	1.6	I.	Skilled worker or foreman—such as baker, inspector, etc.
8.6	10.6	14.5	16.1	9.2	10.1	J.	Clerical worker—such as bookkeeper, secretary, typist, sales clerk, store clerk, etc.
1.2	1.2	1.7	1.3	1.2	1.3	K.	Sales—such as real estate, life insurance, etc.
1.2	1.4	1.8	1.7	1.6	1.6	L.	Manager—such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
0.6	0.5	0.6	0.6	0.6	0.5	M.	Official—such as manufacturer, officer in a large company, banker, government official or inspector, etc.
1.1	1.3	1.7	1.7	1.7	1.7	N.	Proprietor or owner—such as owner of a small business, wholesaler, retailer, restaurant owner, etc.
3.1	3.3	8.1	10.4	3.9	4.4	O.	Professional--such as actress, accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, etc.
0.5	0.2	0.4	0.5	0.4	0.4	P.	Technical—such as draftsman, medical or dental technician, etc.
5.8	4.9	3.1	2.8	6.5	5.5	Q.	I don't know.
68	68	48	41	135	91		(Number that omitted item)

208. Which *one* of the following comes *closest* to describing the work of your mother (or the female head of your household)? *Mark only one answer. If she does housework in addition to outside work, count only the outside work. If she works on more than one job, mark the most important one. If she usually works, but is now out of work, mark the one that she did last.*

209. If your mother (or the female head of your household) has a professional or technical occupation (that is, if you marked O or P in the preceding question), answer this question. If your mother does not have a professional or technical occupation, mark A on your answer sheet and go on to the next question.
Which *one* of the following professional or technical occupations comes *closest* to describing your mother's occupation?

Noncollege Respondents		College Respondents		Non-respondents			
M	P	M	P	M	P		
94.0	95.1	89.7	87.5	92.1	92.7	A.	My mother has an occupation other than professional or technical.
0.1	--	0.1	0.1	0.1	0.1	B.	Accountant or auditor
0.1	0.1	0.2	0.2	--	0.2	C.	Actress, musician, entertainer
0.1	--	--	--	0.1	--	D.	Architect
0.1	--	0.1	0.1	0.1	0.1	E.	Artist, designer, sculptress
--	--	--	--	--	--	F.	Biological scientist
--	--	--	--	--	--	G.	Chemist
--	--	--	--	--	--	H.	College administrator
--	--	--	--	0.1	--	I.	Clergywoman
--	--	--	0.1	--	0.1	J.	Dentist
--	--	--	--	0.1	--	K.	Draftsman
--	--	--	--	0.1	--	L.	Economist
--	--	--	0.1	0.1	0.1	M.	Editor or reporter
--	--	--	--	--	--	N.	Elected or appointed officer—mayor, senator, judge, etc.
--	--	--	--	0.1	--	O.	Engineer—aeronautical, civil, chemical, electrical, mechanical, etc.
0.3	0.2	0.3	0.2	0.4	0.2	P.	Lawyer (not elected or appointed official)
0.3	0.1	0.2	0.4	0.3	0.2	Q.	Librarian
0.3	--	0.2	--	0.4	--	R.	Mathematician
1.2	1.9	2.1	2.1	1.6	1.8	S.	Nurse
0.2	--	0.1	0.2	0.2	0.1	T.	Optometrist, osteopath, chiropractor, pharmacist
0.1	--	--	0.1	0.1	0.1	U.	Physician or surgeon
0.2	0.1	0.1	--	0.2	0.1	V.	Physicist
0.1	0.2	0.1	0.2	0.2	0.2	W.	Psychologist
0.1	0.1	0.1	0.2	0.1	0.1	X.	Sociologist
--	--	0.2	0.3	0.1	0.1	Y.	Social or welfare worker
0.2	0.1	--	--	0.1	0.1	Z.	Statistician
0.3	0.3	0.2	0.2	0.2	0.3	AA.	Surveyor
0.9	0.7	3.5	5.0	1.4	1.4	BB.	Teacher, elementary school
0.3	0.2	1.1	1.1	0.4	0.4	CC.	Teacher, high school
0.1	--	0.2	0.3	0.2	0.1	DD.	Technician, medical or dental
0.1	0.1	0.1	0.1	0.1	0.2	EE.	Veterinarian
0.2	0.1	0.1	0.1	0.1	0.2	FF.	A technical occupation not listed above
0.5	0.3	0.3	0.3	0.4	0.4	GG.	A scientific occupation not listed above
0.2	0.3	0.5	0.6	0.5	0.6	HH.	A professional occupation not listed above
115	121	82	72	236	160		(Number that omitted item)

210. In which *one* of the following programs do you expect to specialize in college? *Mark one of these even if you have not definitely made up your mind.*

Noncollege Respondents		College Respondents		Non-respondents			
M	P	M	P	M	P		
46.5	59.5	2.0	2.9	35.1	44.4	A.	I do not expect to attend college.
1.0	0.6	2.8	3.0	1.5	0.9	B.	Biological sciences (botany, physiology, zoology)
2.1	0.3	8.5	2.4	2.9	0.5	C.	Physical sciences (chemistry, geology, physics, astronomy)
11.2	--	28.6	0.3	13.7	0.1	D.	Engineering
1.8	0.5	4.8	3.3	2.1	0.7	E.	Mathematics
0.8	0.6	5.9	2.5	2.2	0.9	F.	Pre-medical
0.3	0.3	2.1	0.6	1.3	0.4	G.	Pre-dental
1.2	0.2	4.7	0.7	2.8	0.4	H.	Pre-law
7.6	10.9	13.1	9.6	9.9	11.7	I.	Business administration
2.4	3.8	5.7	29.5	3.5	8.3	J.	Education
0.5	1.0	1.5	6.0	0.9	2.4	K.	Sociology or psychology
0.3	0.1	1.4	0.8	0.8	0.2	L.	Political science or economics
0.4	0.7	0.6	3.0	0.6	1.3	M.	Foreign languages
0.7	0.6	3.4	5.3	1.4	1.4	N.	Other liberal arts (philosophy, literature, history, etc.)
1.8	1.7	2.6	6.5	1.9	2.8	O.	Fine arts (music, art, ballet, etc.)
2.5	0.1	3.1	0.1	2.6	0.1	P.	Agriculture
0.3	9.5	0.1	7.8	0.3	8.2	Q.	Nursing
0.1	1.3	--	4.3	0.1	1.8	R.	Home economics
0.5	0.1	1.6	0.1	0.5	0.2	S.	Pre-theology
0.3	0.4	0.8	1.4	0.6	0.6	T.	Journalism
7.9	6.0	7.2	7.6	8.1	6.6	U.	A program not listed above.
9.6	6.8	3.5	2.5	7.5	6.0	V.	I have no plans regarding college programs.
75	58	37	30	132	77		(Number that omitted item)

211. In the following list of occupations, mark the occupation you *expect* to make your career after you have completed your education. *If your choice is not on the list, mark the one that is closest to it. Mark one of these even if you have not definitely made up your mind.*

Noncollege Respondents		College Respondents		Non-respondents			
M	P	M	P	M	P		
4.9	3.5	4.6	1.3	4.9	3.2	A.	Accountant
1.0	0.2	2.0	1.4	1.0	0.5	B.	Biological scientist (biologist, botanist, physiologist, zoologist, etc.)
0.2	0.1	1.0	0.6	0.5	0.4	C.	College professor
0.8	0.3	2.6	0.3	1.6	0.2	D.	Dentist
13.0	0.1	24.6	0.4	14.3	0.2	E.	Engineer (aeronautical, civil, chemical, mechanical, etc.)
0.5	3.0	0.7	21.0	0.6	6.8	F.	Elementary school teacher
2.9	2.0	9.0	17.4	4.7	4.6	G.	High school teacher
1.6	0.2	4.9	0.8	3.1	0.3	H.	Lawyer
0.7	0.2	2.1	1.3	1.0	0.2	I.	Mathematician
0.6	0.3	1.9	0.5	1.3	0.6	J.	Pharmacist
1.0	0.2	2.5	0.3	1.2	0.3	K.	Clergyman (minister, priest, rabbi, etc.)
1.2	0.2	5.6	1.5	1.8	0.2	L.	Physical scientist (chemist, geologist, physicist, astronomer, etc.)
0.5	0.2	5.0	1.3	1.6	0.4	M.	Physician
0.1	--	0.8	0.5	0.4	0.1	N.	Political scientist or economist
0.9	1.4	0.4	3.3	1.0	2.3	O.	Social worker
0.3	0.4	1.1	3.2	0.5	0.9	P.	Sociologist or psychologist
6.2	0.6	2.3	0.1	5.5	0.5	Q.	Armed forces officer
2.1	1.5	1.6	3.4	2.1	2.2	R.	Artist or entertainer
5.3	0.4	8.6	0.4	7.5	0.5	S.	Businessman
2.0	--	0.4	--	1.4	--	T.	Craftsman
1.1	--	1.1	--	0.8	--	U.	Engineering or scientific aide
2.3	0.1	1.8	0.1	2.5	--	V.	Forester
0.4	1.9	0.5	3.7	0.5	1.7	W.	Medical or dental technician
0.2	11.6	0.1	8.5	0.2	9.9	X.	Nurse
2.2	0.6	1.0	0.2	2.2	0.7	Y.	Pilot, airplane
2.5	0.2	0.4	0.1	2.1	0.2	Z.	Policeman or fireman
0.8	42.4	0.1	10.7	0.6	33.8	AA.	Secretary, office clerk or typist
0.3	0.3	0.9	1.4	0.6	0.6	BB.	Writer
1.4	6.2	0.1	0.3	1.1	5.4	CC.	Barber or beautician
4.0	0.1	0.3	--	3.1	0.1	DD.	Enlisted man in the armed forces
6.4	0.2	2.1	0.1	4.5	0.2	EE.	Farmer
0.1	12.0	--	5.7	0.1	12.7	FF.	Housewife
1.3	0.8	0.8	0.2	1.2	0.8	GG.	Salesman or saleswoman
12.3	0.1	1.6	--	8.5	0.1	HH.	Skilled worker (electrician, machinist, plumber, printer, etc.)
2.4	--	0.3	--	2.0	--	II.	Structural worker (bricklayer, carpenter, painter, paperhanger, etc.)
16.7	8.9	7.1	10.1	14.1	9.1	JJ.	Some other occupation different from any above
87	61	44	30	162	82		(Number that omitted item)

212. Which *one* of the following occupations would you most *like* to enter? *If your choice is not on the list, mark the one that is closest to it. Mark one of these even if you have not definitely made up your mind.*

Noncollege Respondents		College Respondents		Non-respondents			
M	P	M	P	M	P		
4.6	3.9	4.0	1.5	4.6	3.5	A.	Accountant
1.2	0.6	2.1	2.1	1.3	0.8	B.	Biological scientist (biologist, botanist, physiologist, zoologist, etc.)
0.3	0.2	1.3	1.0	0.5	0.5	C.	College professor
1.0	0.3	2.8	0.4	1.9	0.2	D.	Dentist
14.7	0.2	23.7	0.4	15.3	0.3	E.	Engineer (aeronautical, civil, chemical, mechanical, etc.)
0.6	4.1	0.5	17.4	0.6	6.6	F.	Elementary school teacher
2.6	2.3	6.9	12.6	3.8	3.8	G.	High school teacher
2.2	0.9	5.9	1.5	4.1	1.1	H.	Lawyer
0.8	0.3	2.2	0.7	1.2	0.4	I.	Mathematician
0.8	0.4	1.9	0.6	1.5	0.6	J.	Pharmacist
1.0	0.3	2.5	0.4	1.2	0.5	K.	Clergyman (minister, priest, rabbi, etc.)
1.6	0.4	6.1	2.1	2.2	0.5	L.	Physical scientist (chemist, geologist, physicist, astronomer, etc.)
0.9	0.7	5.5	2.3	2.1	1.1	M.	Physician
0.2	0.1	0.9	0.6	0.3	0.1	N.	Political scientist or economist
0.6	3.3	0.4	4.2	0.8	3.6	O.	Social worker
0.4	1.0	1.4	4.6	0.7	1.7	P.	Sociologist or psychologist
6.4	0.9	2.7	0.3	5.6	0.9	Q.	Armed forces officer
2.8	3.5	2.3	5.9	2.8	4.1	R.	Artist or entertainer
4.3	0.3	6.3	0.3	6.0	0.4	S.	Businessman
1.6	--	0.3	--	1.3	--	T.	Craftsman
1.3	--	1.0	0.1	1.0	--	U.	Engineering or scientific aide
4.1	0.1	2.4	0.2	3.2	0.1	V.	Forester
0.4	2.1	0.5	3.4	0.6	2.0	W.	Medical or dental technician
0.3	13.0	0.1	8.6	0.2	11.3	X.	Nurse
5.5	1.0	3.3	0.6	4.5	1.0	Y.	Pilot, airplane
2.5	0.3	0.4	0.1	2.3	0.2	Z.	Policeman or fireman
0.7	31.8	0.1	7.3	0.5	26.1	AA.	Secretary, office clerk or typist
0.5	1.1	1.2	2.6	0.9	1.3	BB.	Writer
1.2	6.5	0.1	0.3	1.1	5.8	CC.	Barber or beautician
2.1	0.1	0.2	--	1.9	0.2	DD.	Enlisted man in the armed forces
5.8	0.3	2.2	0.3	4.3	0.3	EE.	Farmer
0.1	10.8	--	6.2	0.1	11.1	FF.	Housewife
0.9	0.5	0.6	0.2	1.0	0.6	GG.	Salesman or saleswoman
11.0	0.1	1.4	--	7.6	0.1	HH.	Skilled worker (electrician, machinist, plumber, printer, etc.)
2.4	--	0.4	--	1.9	--	II.	Structural worker (bricklayer, carpenter, painter, paperhanger, etc.)
12.6	8.2	6.7	10.2	11.5	8.9	JJ.	Some other occupation different from any above
82	61	44	32	161	82		(Number that omitted item)

Part IV

Directions: The questions in this part are similar to those in some of the earlier parts. Answer each question sincerely and thoughtfully. Each question has *one answer* and *only one answer*.

Some of these questions are again about your parents or the heads of your household. If you live in an institution, skip to question 227.

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
38.5	39.6	36.7	34.7	37.1	35.5	213. For whom does your father work? *Mark only one answer. If he works on more than one job, mark the most important one. If he is now out of work, or if he is retired, mark the one that was his last employer.* A. A large company or industry
14.8	14.5	12.4	11.1	12.7	12.9	B. A small local company or industry
1.9	1.4	2.5	1.5	2.2	1.5	C. A retail business
7.3	7.7	4.6	5.4	6.9	7.0	D. An individual employer
21.3	19.6	27.7	29.4	22.9	22.5	E. He is self-employed.
2.7	2.6	3.0	2.6	2.9	2.4	F. The local or community government
1.3	1.2	3.2	3.9	1.7	1.6	G. A school or college
1.4	0.9	1.5	1.3	1.6	1.7	H. Military services
4.3	4.4	6.2	6.6	4.5	4.4	I. The state or national government (except military services or schools)
6.6	8.1	2.2	3.4	7.6	10.5	J. I don't know.
126	164	118	114	210	181	(Number that omitted item)
11.1	12.7	9.9	9.4	11.6	12.9	214. For whom does your mother work? *Mark only one answer. If she works on more than one job, mark the most important one. If she is now out of work, mark the one that was her last employer.* A. A large company or industry
8.5	9.0	7.6	7.5	8.4	9.0	B. A small local company or industry
3.7	3.3	3.9	3.0	3.7	3.7	C. A retail business
8.1	9.5	6.6	8.2	8.3	9.1	D. An individual employer
1.7	1.7	2.4	2.3	2.0	1.6	E. The local or community government
3.5	2.5	7.6	9.2	3.9	3.6	F. A school or college
1.9	1.7	2.4	2.5	2.3	1.9	G. The state or national government (except schools)
5.7	4.5	5.2	4.7	6.5	5.4	H. She is self-employed.
49.5	50.2	52.0	51.0	46.5	48.0	I. Housewife only; she has not worked for pay in the last 3 years
6.3	4.5	2.3	2.4	7.0	5.1	J. I don't know.
87	88	71	56	165	118	(Number that omitted item)
0.4	0.4	0.1	0.2	0.6	0.5	215. How old is your father? A. 29 or younger
1.0	0.7	0.6	0.3	1.4	0.9	B. 30-34
8.1	9.0	5.6	6.8	9.6	10.0	C. 35-39
28.0	29.9	29.2	29.7	27.1	29.1	D. 40-44
25.3	24.7	29.1	28.1	24.0	24.3	E. 45-49
18.3	18.5	21.4	21.0	18.2	18.5	F. 50-54
8.1	8.1	7.8	8.1	7.9	7.3	G. 55-59
4.7	4.2	3.2	3.3	4.3	4.1	H. 60-64
2.6	2.6	1.5	1.4	2.2	2.4	I. 65 or older
3.6	2.1	1.4	1.4	4.5	2.8	J. I don't know.
126	150	127	114	207	158	(Number that omitted item)
0.5	0.2	0.1	0.1	0.6	0.5	216. How old is your mother? A. 29 or younger
2.8	2.7	1.9	1.4	3.7	3.2	B. 30-34
22.7	22.7	17.7	18.0	23.1	23.9	C. 35-39
31.0	34.3	35.9	36.6	30.8	33.0	D. 40-44
21.5	20.8	26.0	24.4	20.7	20.5	E. 45-49
11.7	11.9	11.8	13.6	11.0	11.6	F. 50-54
4.6	4.6	3.8	4.0	4.5	4.0	G. 55-59
1.6	1.4	0.8	0.9	1.3	1.2	H. 60-64
0.3	0.3	0.2	0.2	0.3	0.3	I. 65 or older
3.3	1.2	1.7	1.0	4.0	1.7	J. I don't know.
71	70	61	42	130	85	(Number that omitted item)
21.6	20.2	21.6	21.2	23.0	22.3	217. In which branch of the military service did your father serve? *If he served in more than one, mark the one in which he served the longest time.* A. Army
8.8	8.8	10.0	9.8	9.5	8.8	B. Navy
2.6	2.1	3.1	2.6	2.9	2.3	C. Air Force
1.6	1.5	1.5	1.3	2.0	1.5	D. Marine Corps
1.3	0.5	0.9	0.7	1.1	0.7	E. Coast Guard
1.2	1.0	1.1	0.8	1.3	1.1	F. He served in the Merchant Marine instead of the armed forces.
58.3	60.0	58.8	59.6	55.1	56.4	G. He did not serve.
4.6	5.6	3.1	4.0	5.0	6.9	H. He served, but I don't know in which branch.
99	122	88	76	169	137	(Number that omitted item)
9.0	9.4	4.1	3.5	8.4	8.7	218. Mark the *one* answer indicating the *highest* level of education your father reached. *Mark the one best answer even if you are not sure.* A. None, or some grade school
21.2	21.1	11.3	9.7	16.6	17.2	B. Completed grade school
24.7	25.4	16.5	16.1	22.4	23.9	C. Some high school, but did not graduate
21.6	20.7	26.3	23.6	22.2	19.4	D. Graduated from high school
4.5	4.7	7.3	7.6	4.3	4.6	E. Vocational or business school after high school
3.8	4.2	10.3	11.4	5.5	5.4	F. Some junior or regular college, but did not graduate
3.2	2.4	11.0	11.8	5.3	4.9	G. Graduated from a regular 4-year college
0.5	0.4	2.9	3.5	1.2	0.9	H. Master's degree
0.4	0.5	1.5	2.2	0.9	0.8	I. Some work toward doctorate or professional degree
1.5	1.7	5.0	6.0	2.6	3.1	J. Completed doctorate or professional degree
9.7	9.5	3.8	4.6	10.6	11.2	K. I don't know.
80	101	66	56	143	104	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
4.9	5.6	1.8	1.7	4.7	5.5	219. Mark the *one* answer indicating the *highest* level of education your mother reached. *Mark the one best answer even if you are not sure.* A. None, or some grade school
16.6	16.8	6.1	7.4	13.2	14.8	B. Completed grade school
24.5	29.3	14.7	15.1	23.1	28.2	C. Some high school, but did not graduate
33.4	29.7	38.2	32.7	33.0	27.7	D. Graduated from high school
4.6	5.1	9.5	12.7	5.7	6.4	E. Vocational or business school after high school
3.1	3.1	9.7	11.5	4.5	4.7	F. Some junior or regular college, but did not graduate
3.2	2.0	11.6	11.9	5.0	3.6	G. Graduated from a regular 4-year college
0.6	0.3	1.6	2.0	1.0	0.6	H. Master's degree
0.6	0.5	0.9	1.1	0.5	0.5	I. Some work toward doctorate or professional degree
0.9	1.1	1.1	1.6	1.1	1.2	J. Completed doctorate or professional degree
7.7	5.5	2.8	2.3	8.4	6.6	K. I don't know.
68	57	54	45	123	84	(Number that omitted item)
81.1	80.8	87.5	86.9	76.2	75.9	220. With whom are you now living; that is, who are the heads of the house? A. Mother and father
8.2	8.7	6.2	6.6	9.4	9.9	B. Mother only
1.8	1.6	1.0	0.9	2.4	1.6	C. Father only
0.5	0.3	0.2	0.2	0.6	0.4	D. Sometimes with my mother, sometimes with my father
3.6	3.9	2.3	2.8	4.1	4.5	E. Mother and stepfather
1.0	1.1	0.9	0.8	1.3	1.3	F. Father and stepmother
2.1	1.4	1.0	1.0	3.0	2.5	G. Grandparents, aunt, uncle, or cousins
0.4	0.5	0.2	0.2	0.9	1.0	H. Brother or sister
0.2	0.3	0.3	0.2	0.5	0.7	I. Foster parents (not relatives)
1.0	1.4	0.5	0.4	1.6	2.1	J. Someone not listed above
51	36	38	24	99	53	(Number that omitted item)
9.2	8.4	12.2	12.0	9.3	8.7	221. What is the total number of living children in your family? *Include yourself, together with all full brothers and sisters, half-brothers and sisters, stepbrothers and sisters, and foster brothers and sisters. Include those not now living in your home.* A. One
20.1	22.3	31.6	32.1	21.9	21.7	B. Two
21.8	21.7	24.6	24.3	21.9	20.3	C. Three
16.7	16.8	14.4	15.2	15.8	16.3	D. Four
11.9	11.7	8.9	7.5	10.5	11.1	E. Five
7.2	7.1	4.3	3.8	7.1	7.2	F. Six
4.5	4.1	2.0	2.2	5.1	5.0	G. Seven
3.0	3.1	1.1	1.3	3.0	3.4	H. Eight
1.9	2.0	0.7	0.5	2.0	2.2	I. Nine
1.5	1.3	0.5	0.5	1.3	1.5	J. Ten
0.9	0.8	0.3	0.2	0.8	1.0	K. Eleven
1.3	1.2	0.3	0.4	1.3	1.5	L. Twelve or more
63	45	34	22	104	58	(Number that omitted item)
56.9	58.6	70.2	70.3	56.4	56.0	222. How many of your brothers, half-brothers, foster brothers, or stepbrothers are older than you? *Do not count your own twin brother.* A. None
20.9	24.6	20.9	21.2	24.7	25.1	B. One
10.1	9.1	5.6	5.4	9.7	10.3	C. Two
4.0	4.0	2.0	1.7	3.9	4.3	D. Three
1.8	1.6	0.6	0.6	2.0	1.8	E. Four
0.8	0.8	0.3	0.3	1.1	0.9	F. Five
0.6	0.5	0.2	0.1	0.7	0.6	G. Six
0.3	0.3	0.1	0.1	0.6	0.3	H. Seven
0.2	0.2	--	--	0.2	0.2	I. Eight
0.1	0.1	--	--	0.2	0.1	J. Nine
0.1	--	--	--	0.1	0.1	K. Ten
0.2	0.1	0.1	0.1	0.3	0.2	L. Eleven or more
73	78	53	48	124	91	(Number that omitted item)
59.6	60.2	71.4	72.5	59.1	58.6	223. How many of your sisters, half-sisters, foster sisters, or stepsisters are older than you? *Do not count your own twin sister.* A. None
23.7	23.3	20.2	19.3	23.6	24.3	B. One
8.7	9.1	5.5	5.2	8.8	9.3	C. Two
4.1	3.8	1.7	1.7	3.8	3.8	D. Three
1.9	1.8	0.6	0.7	2.0	2.3	E. Four
0.9	0.9	0.3	0.2	1.0	0.8	F. Five
0.4	0.4	0.1	0.2	0.6	0.5	G. Six
0.2	0.2	0.1	0.1	0.4	0.2	H. Seven
0.1	0.1	--	--	0.3	0.1	I. Eight
0.1	--	0.1	0.1	0.1	0.1	J. Nine
--	--	--	--	0.2	0.1	K. Ten
0.2	0.1	0.1	--	0.2	0.1	L. Eleven or more
68	54	62	43	119	67	(Number that omitted item)
64.9	65.3	57.7	56.9	59.7	61.3	224. Where did you live just before moving to this community? A. I have lived here all my life.
3.2	3.1	2.6	3.2	3.0	2.8	B. New England States (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut)
5.5	6.1	7.7	7.8	5.6	5.6	C. Middle Atlantic States (New York, New Jersey, Pennsylvania)
4.4	4.5	4.8	4.5	5.4	5.5	D. South Atlantic States (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida)
8.3	7.4	8.3	8.5	7.0	6.6	E. East North Central States (Ohio, Indiana, Illinois, Michigan, Wisconsin)
3.8	3.4	4.4	4.2	4.2	3.3	F West North Central States (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas)
2.3	2.1	2.4	2.4	2.9	3.1	G. East South Central States (Kentucky, Tennessee, Alabama, Mississippi)
2.2	2.7	3.8	4.2	4.5	3.9	H. West South Central States (Arkansas, Louisiana, Oklahoma, Texas)
1.4	1.7	2.0	2.0	2.2	2.2	I. Mountain States (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada)
2.9	2.5	4.7	4.7	3.9	3.7	J. Pacific States (Washington, Oregon, California, Hawaii, Alaska)
0.2	0.2	0.2	0.1	0.3	0.4	K. United States possessions (Puerto Rico, Guam, etc.)
0.9	1.0	1.3	1.3	1.4	1.5	L. In a foreign country
72	59	53	33	132	76	(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
225. How many rooms are in your home? *Count all rooms; bedrooms, bathrooms, kitchen, living room, dining room, recreation room, enclosed porch, etc.*						
0.3	0.1	0.1	--	0.4	0.3	A. One
0.5	0.2	0.2	0.1	0.5	0.3	B. Two
1.2	0.9	0.7	0.5	1.6	1.0	C. Three
4.0	3.2	2.2	1.3	4.2	3.7	D. Four
10.3	9.9	5.6	5.3	9.9	10.1	E. Five
17.4	18.9	12.8	12.6	17.2	18.1	F. Six
33.5	36.6	33.5	33.7	32.9	34.0	G. Seven or eight
19.6	19.1	23.3	25.3	17.4	18.7	H. Nine or ten
7.7	6.7	11.6	11.9	8.1	8.1	I. Eleven or twelve
3.1	2.7	5.0	5.0	3.8	3.2	J. Thirteen or fourteen
1.3	1.0	2.7	2.4	1.9	1.2	K. Fifteen or sixteen
1.1	0.7	2.2	2.0	2.1	1.2	L. Seventeen or more
70	68	64	44	144	74	(Number that omitted item)
226. How many people live in your home? *Include yourself, brothers, sisters, parents, relatives, boarders, roomers, servants, etc.*						
2.7	2.5	2.0	1.8	3.5	2.9	A. Two
15.9	15.6	19.0	18.3	17.1	16.5	B. Three
25.8	27.3	32.2	32.9	25.8	25.7	C. Four
22.8	22.3	23.6	23.3	21.4	21.8	D. Five
13.7	14.0	11.8	12.8	13.7	14.0	E. Six
8.0	8.3	5.9	5.5	7.7	8.1	F. Seven
4.5	4.5	2.8	2.5	4.6	4.8	G. Eight
3.0	2.5	1.2	1.3	2.9	2.5	H. Nine
1.4	1.4	0.7	0.7	1.4	1.7	I. Ten
1.0	0.7	0.4	0.4	0.8	0.9	J. Eleven
0.5	0.4	0.2	0.2	0.4	0.4	K. Twelve
0.7	0.5	0.3	0.4	0.8	0.6	L. Thirteen or more
80	59	66	34	144	70	(Number that omitted item)
227. How tall are you? *Choose the closest one.*						
0.2	2.4	0.1	1.3	0.4	3.1	A. 4 feet 5 inches or less
0.3	0.6	0.1	0.2	0.4	0.6	B. 4 feet 6 inches to 4 feet 8 inches
0.6	2.1	0.2	1.4	0.4	1.8	C. 4 feet 9 inches to 4 feet 11 inches
0.8	22.9	0.5	19.1	1.1	23.9	D. 5 feet 0 inches to 5 feet 2 inches
4.8	43.0	2.8	43.3	4.2	42.8	E. 5 feet 3 inches to 5 feet 5 inches
21.6	25.6	18.6	30.1	20.3	24.4	F. 5 feet 6 inches to 5 feet 8 inches
40.6	3.1	42.5	4.3	41.3	2.9	G. 5 feet 9 inches to 5 feet 11 inches
26.2	0.1	30.1	0.2	27.1	0.2	H. 6 feet 0 inches to 6 feet 2 inches
4.5	0.1	4.6	--	4.1	0.1	I. 6 feet 3 inches to 6 feet 5 inches
0.4	--	0.5	--	0.6	--	J. 6 feet 6 inches or more
85	45	68	29	146	53	(Number that omitted item)
228. How much do you weigh? *Choose the closest one.*						
0.2	0.1	0.1	0.1	0.4	0.2	A. 74 pounds or less
0.3	0.5	0.1	0.4	0.3	0.5	B. 75- 89 pounds
0.5	11.7	0.1	9.3	0.5	11.3	C. 90-104 pounds
2.6	36.3	1.6	37.8	1.9	38.1	D. 105-119 pounds
12.0	30.6	10.2	33.5	11.1	32.3	E. 120-134 pounds
26.0	12.9	25.5	13.4	25.4	12.6	F. 135-149 pounds
27.7	4.8	29.0	3.6	28.3	3.1	G. 150-164 pounds
16.5	1.6	19.0	1.2	17.7	1.1	H. 165-179 pounds
7.8	0.6	8.2	0.4	8.2	0.4	I. 180-194 pounds
3.4	0.3	3.9	0.1	3.4	0.2	J. 195-209 pounds
1.7	0.1	1.4	0.1	1.5	0.1	K. 210-224 pounds
1.2	0.1	1.1	0.1	1.2	0.1	L. 225 pounds or more
83	53	63	33	138	57	(Number that omitted item)
229. How old were you when you learned social dancing?						
22.0	9.1	12.3	6.8	18.1	7.9	A. I never learned to dance.
4.4	10.5	4.2	9.9	5.4	12.9	B. 9 or younger
4.3	9.0	5.1	9.8	5.5	9.4	C. 10
5.1	10.0	7.1	13.7	5.6	10.4	D. 11
11.8	20.9	18.8	26.4	14.3	21.4	E. 12
9.4	18.5	20.4	17.9	15.5	17.0	F. 13
21.9	12.0	15.5	9.5	14.9	11.5	G. 14
11.7	6.4	9.6	4.1	11.3	6.1	H. 15
7.6	2.7	4.8	1.5	5.9	2.5	I. 16
3.6	0.9	2.1	0.3	3.5	0.8	J. 17
0.2	0.1	--	--	0.1	--	K. 18 or older
79	55	65	32	150	67	(Number that omitted item)
230. How many athletic teams have you been a member of in the last 3 years? *Count intra-mural, church, school, and other teams.*						
27.2	45.8	17.4	41.0	21.4	42.7	A. None
13.6	15.4	10.0	15.5	11.8	15.5	B. One
14.1	13.2	12.1	12.5	13.3	13.3	C. Two
13.5	9.5	13.6	10.4	14.0	10.5	D. Three
9.2	5.1	9.7	5.6	9.8	6.0	E. Four
6.3	3.4	7.8	3.6	6.9	3.4	F. Five
4.3	2.2	6.8	2.7	5.7	2.4	G. Six
2.9	1.2	4.2	1.5	3.7	1.2	H. Seven
1.9	0.9	4.0	1.2	2.8	1.0	I. Eight
1.4	0.6	3.3	1.0	2.5	0.6	J. Nine
1.4	0.5	2.2	0.7	1.8	0.7	K. Ten
4.3	2.3	8.9	4.2	6.4	2.5	L. Eleven or more
77	61	72	48	137	67	(Number that omitted item)
231. How many clubs or organizations (other than athletic) have you belonged to in the last 3 years?						
20.4	10.6	7.2	2.1	19.6	10.8	A. None
19.7	13.5	11.0	4.1	17.3	12.9	B. One
21.7	17.8	17.5	8.8	20.1	17.3	C. Two
17.1	17.9	18.7	14.5	16.5	17.8	D. Three
9.0	13.9	14.1	14.4	10.2	12.8	E. Four
5.2	9.8	10.7	14.8	6.3	9.9	F. Five
2.8	6.1	6.9	11.0	3.6	6.4	G. Six
1.3	3.2	4.5	7.7	2.3	3.5	H. Seven
1.0	2.1	3.1	6.8	1.3	2.5	I. Eight
0.4	1.2	1.6	3.2	0.7	1.4	J. Nine
0.4	1.2	1.1	3.6	0.5	1.6	K. Ten
1.0	2.6	3.7	9.1	1.7	3.1	L. Eleven or more
86	51	74	40	187	68	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
0.7	91.6	0.2	95.8	0.6	90.9	**232. What do you *expect* to do about military service?** A. Never serve because I am a girl
0.5	0.1	0.2	--	0.6	0.2	B. Quit high school and enlist
26.3	1.0	2.4	0.2	20.5	1.1	C. Enlist right after high school
5.3	0.2	31.1	0.2	13.4	0.2	D. Work for a commission through a college ROTC program, military school, or one of the service academies
5.0	0.2	5.9	0.1	6.2	0.3	E. Enlist after I have completed some college training
4.7	0.2	17.3	0.4	7.8	0.3	F. Enlist after I have graduated from college
9.1	0.5	1.0	--	6.8	0.3	G. Enlist after I have worked for several years
6.5	0.1	3.1	--	4.9	0.1	H. Enlist in the Reserves or National Guard
12.4	--	11.1	--	10.9	0.1	I. Wait until I am drafted
3.1	0.1	3.5	--	2.8	0.1	J. Never serve because I do not think I can pass the physical examination
2.3	0.6	3.2	0.3	2.6	0.8	K. Never serve for other reasons
24.2	5.2	21.4	2.8	22.8	5.6	L. I have no idea what I will do about military service.
101	60	92	38	176	79	(Number that omitted item)
0.7	89.9	0.2	94.1	0.8	89.1	**233. What would you really *like* to do about military service?** A. Never serve because I am a girl
1.0	0.1	0.3	--	1.0	0.1	B. Quit high school and enlist
25.2	2.1	4.6	0.3	19.5	1.8	C. Enlist right after high school
9.1	0.2	30.4	0.2	14.7	0.3	D. Work for a commission through a college ROTC program, military school, or one of the service academies
5.2	0.5	4.8	0.4	5.6	0.4	E. Enlist after I have completed some college training
5.7	0.4	16.5	1.0	8.5	0.6	F. Enlist after I have graduated from college
8.3	0.7	1.2	0.1	6.5	0.7	G. Enlist after I have worked for several years
6.1	0.1	3.0	0.1	4.3	0.2	H. Enlist in the Reserves or National Guard
10.3	--	9.3	--	10.7	--	I. Wait until I am drafted
2.7	0.1	2.6	--	2.5	0.2	J. Never serve because I do not think I can pass the physical examination
7.7	0.9	11.8	0.6	8.2	1.1	K. Never serve for other reasons
17.9	4.9	15.1	3.0	17.7	5.6	L. I have no preference.
107	56	98	30	179	64	(Number that omitted item)
9.1	93.9	9.5	97.3	9.6	94.0	**234. Which *one* of the following is your *most important* reason for your choice of ways to enter the military (that is, enlisting, being drafted, etc.)?** A. I do not expect to serve.
24.7	2.0	12.2	0.6	20.3	1.9	B. Being able to choose among the branches
7.0	0.1	6.4	0.1	7.0	0.2	C. Short active service requirement
13.9	0.2	10.1	--	12.9	0.2	D. Getting active duty over with
8.5	0.5	14.4	0.4	10.9	0.7	E. Obtaining a good rank or rating
8.8	0.7	7.7	0.4	8.2	0.6	F. Obtaining the best chance for advancement in the service
3.1	0.5	1.2	0.1	3.6	0.4	G. Having a chance to serve with friends
2.4	0.6	1.2	0.3	2.3	0.6	H. Having a chance to serve in the place (city, country, etc.) I want
8.0	0.5	5.8	0.3	7.0	0.4	I. Starting a career before entering the service
3.6	0.1	3.0	--	2.9	--	J. Allows me to delay serving as long as possible
8.5	0.7	27.1	0.4	12.4	0.6	K. Allows me to complete my education
2.8	0.2	1.4	0.1	3.0	0.4	L. Allows me to live near home while serving
131	76	129	42	235	91	(Number that omitted item)
4.4	27.1	4.2	36.5	4.4	28.6	**235. In which branch of the service do you expect to serve?** A. I do not expect to serve, for physical reasons.
5.2	55.8	6.3	60.3	5.6	64.5	B. I do not expect to serve, for reasons other than physical.
26.3	1.1	27.0	0.3	24.4	1.0	C. Army
26.2	2.8	28.5	1.3	26.5	2.8	D. Air Force
20.8	2.0	21.4	1.2	21.2	1.7	E. Navy
8.2	0.8	5.4	0.3	9.5	0.8	F. Marine Corps
2.3	0.1	2.1	--	2.3	0.1	G. Coast Guard
3.2	0.1	2.3	--	2.6	0.1	H. Army Reserves or National Guard
1.0	0.1	1.1	0.1	1.3	0.1	I. Air Force Reserves or National Guard
1.2	--	1.0	--	0.9	0.1	J. Navy Reserves
0.6	0.1	0.4	--	0.6	0.1	K. Marine Corps Reserves
0.4	--	0.3	--	0.6	0.1	L. Coast Guard Reserves
114	131	107	133	211	199	(Number that omitted item)
9.9	93.3	10.7	97.1	10.4	93.4	**236. Which *one* of the following is the *most important* reason for your choice of a branch of the service?** A. I do not expect to serve.
8.5	0.4	10.1	0.2	9.2	0.5	B. Offers the best plan for completing required service
36.7	2.3	25.1	0.5	32.0	1.9	C. Has good training opportunities
3.0	0.1	1.7	--	3.2	0.2	D. My friends chose that branch
1.2	0.2	0.7	0.2	1.9	0.3	E. Has the best looking uniform
0.8	--	0.6	--	1.4	--	F. Receives the most glory from other people
1.8	0.1	3.3	0.1	2.6	0.1	G. Offers the most pleasant duty assignments
2.8	0.1	3.0	0.1	2.8	0.1	H. Allows me choice of a desirable location (near home, a large city, etc.)
8.5	1.6	9.9	0.8	9.2	1.6	I. Travel or adventure
2.7	0.2	3.5	--	3.1	0.2	J. Best living conditions
24.1	1.6	31.4	0.9	24.3	1.6	K. Some reason not listed above
170	109	224	69	316	114	(Number that omitted item)
53.1	62.7	2.4	3.8	38.7	51.6	**237. Which *one* of the following *best* describes the college you expect to attend?** A. I do not expect to go to college.
3.3	3.5	7.1	17.5	4.3	6.5	B. A teachers college
2.9	0.2	4.0	1.1	4.1	0.4	C. An agricultural college
9.1	0.2	18.1	0.8	10.7	0.5	D. An engineering college
4.8	3.7	21.9	29.1	9.1	8.3	E. A liberal arts college
1.4	1.1	1.8	2.8	2.0	1.4	F. A college specializing in music or fine arts
6.2	5.1	30.8	30.4	13.2	9.6	G. A university which includes many of the above colleges
10.2	17.6	9.8	12.0	9.4	15.8	H. Some other type of college
8.9	5.9	4.0	2.5	8.4	6.0	I. I have no plans regarding the type of college I will attend.
108	75	91	61	196	91	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						238. How old do you expect to be when you get married?
1.1	2.1	0.3	0.2	1.1	2.2	A. I am already married.
0.6	2.0	0.1	0.2	0.6	2.4	B. 17 years old or younger
2.5	10.6	0.5	1.5	2.6	12.0	C. 18 years old
4.7	12.8	1.7	4.6	5.0	13.4	D. 19 years old
11.5	20.6	5.5	12.7	9.8	17.3	E. 20 years old
28.0	30.5	22.6	39.5	25.2	28.9	F. 21 or 22 years old
22.9	14.4	33.1	29.5	23.8	15.4	G. 23 or 24 years old
13.7	3.4	20.7	7.2	15.3	4.4	H. 25 or 26 years old
3.6	0.6	6.8	1.4	5.1	0.9	I. 27 to 29 years old
1.2	0.2	1.5	0.2	1.5	0.2	J. 30 to 35 years old
0.9	0.1	0.5	--	0.9	--	K. 36 or older
9.4	2.7	6.7	3.0	8.8	2.8	L. I don't expect to marry.
124	81	103	65	224	94	(Number that omitted item)
						239. If all your plans work out as they should, how much money *per year* would you *expect* to be earning *twenty years* after you graduate from high school?
1.8	12.0	1.1	7.5	2.0	11.3	A. $2,500 or less
7.7	24.5	1.9	13.8	4.3	20.8	B. $2,500 to $5,000
17.9	24.9	8.4	26.7	15.2	22.7	C. $5,000 to $7,500
23.5	15.8	16.6	20.6	19.7	15.9	D. $7,500 to $10,000
15.8	7.4	17.0	10.7	14.3	8.5	E. $10,000 to $12,500
10.0	4.8	14.8	6.5	10.5	6.0	F. $12,500 to $15,000
5.9	2.9	10.3	4.0	7.2	3.5	G. $15,000 to $17,500
4.3	2.5	7.3	3.0	5.5	3.0	H. $17,500 to $20,000
3.2	1.7	6.3	2.3	4.3	2.8	I. $20,000 to $22,500
1.7	0.9	3.3	1.3	2.3	1.6	J. $22,500 to $25,000
8.2	2.7	13.0	3.8	12.6	3.9	K. $25,000 or more
165	308	155	221	304	360	(Number that omitted item)
						240. How much money is the *least* amount of earnings (per year) that would *satisfy* you in the twentieth year after you graduate from high school?
4.6	21.3	2.3	14.3	4.2	19.6	A. $2,500 or less
15.1	30.5	7.0	24.0	11.8	25.1	B. $2,500 to $5,000
28.5	22.5	27.4	27.9	23.7	21.6	C. $5,000 to $7,500
21.0	10.8	24.6	14.9	20.0	12.0	D. $7,500 to $10,000
11.6	5.4	15.8	7.5	12.4	7.3	E. $10,000 to $12,500
5.4	2.6	7.8	3.5	6.4	3.3	F. $12,500 to $15,000
3.6	1.9	6.4	2.5	5.1	2.5	G. $15,000 to $17,500
2.3	1.5	3.6	1.7	3.6	2.5	H. $17,500 to $20,000
1.7	0.9	2.7	1.2	3.1	1.9	I. $20,000 to $22,500
1.0	0.6	1.6	0.8	1.8	1.1	J. $22,500 to $25,000
5.2	2.0	5.8	1.6	7.9	3.2	K. $25,000 or more
191	280	143	203	279	342	(Number that omitted item)

Part V

Directions: The questions in this part are about your health. Each question has *one answer* and *only one answer. Answer every question.* Now, go ahead and answer the questions.

Health

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						241. How many different times have you been sick in bed (as much as a day) in the past year?
37.4	23.2	31.6	20.1	36.1	20.9	A. None
41.7	40.5	46.4	44.5	40.6	39.1	B. One or two
11.9	18.4	12.3	20.2	13.0	19.4	C. Three or four
4.7	7.5	3.9	7.6	5.1	8.8	D. Five or six
1.6	3.8	1.3	3.1	1.8	4.4	E. Seven or eight
2.7	6.5	1.5	4.4	3.4	7.4	F. Nine or more
85	43	47	20	152	63	(Number that omitted item)
						242. What is the *longest* period of time that you have ever been in bed for sickness or an accident?
70.3	68.9	68.6	64.6	69.3	67.8	A. Up to one week
20.7	23.1	24.5	28.1	20.8	23.7	B. Up to one month
5.3	5.2	4.9	5.0	6.2	5.1	C. Up to three months
2.2	1.5	1.2	1.3	2.0	1.7	D. Up to six months
0.7	0.7	0.5	0.7	0.9	0.9	E. Up to one year
0.7	0.6	0.4	0.3	0.8	0.8	F. More than one year
105	71	59	30	187	87	(Number that omitted item)
						243. Which one of the following best describes your usual health in the last three years?
39.1	30.5	49.6	41.6	41.9	29.3	A. Excellent
36.2	39.0	35.2	39.1	36.3	38.1	B. Very good
16.1	17.5	10.7	12.6	14.1	18.6	C. Good
7.4	11.2	4.0	5.8	6.5	11.9	D. Average
1.0	1.6	0.5	0.8	1.0	2.0	E. Poor
0.1	0.1	0.1	--	0.3	0.2	F. Very poor
92	44	53	21	158	66	(Number that omitted item)
						244. Which one of the following best describes your usual health before you were ten years old?
31.4	28.5	36.4	33.8	34.5	29.3	A. Excellent
32.8	35.8	33.5	34.7	32.9	35.2	B. Very good
18.6	17.5	15.6	14.3	17.0	17.6	C. Good
12.1	12.2	9.5	10.2	10.0	12.0	D. Average
4.3	5.2	4.5	4.6	4.6	5.0	E. Poor
0.8	0.7	0.5	0.4	0.9	0.9	F. Very poor
92	45	53	22	161	62	(Number that omitted item)
						245. How many times have you been treated by a doctor (outside of school) for illness, injury or an accident in the past six months?
49.0	50.6	48.7	51.5	46.1	46.6	A. None
23.5	22.6	26.6	24.9	25.3	24.0	B. One
12.9	11.1	12.5	11.3	13.6	12.1	C. Two
6.2	6.0	5.3	5.5	6.3	6.8	D. Three
2.6	2.7	2.3	2.1	2.7	2.9	E. Four
5.8	7.1	4.7	4.9	5.9	7.5	F. Five or more
95	46	55	22	169	66	(Number that omitted item)
						246. *On the average*, about how many hours do you sleep each night?
7.4	5.7	4.5	5.5	8.0	6.5	A. About six or less
25.2	25.0	25.4	28.9	26.0	25.7	B. About seven
42.6	45.2	44.1	45.8	42.4	44.2	C. About eight
19.4	18.3	21.6	16.6	18.0	17.4	D. About nine
4.4	5.0	4.1	3.0	4.5	5.3	E. About ten
1.0	0.7	0.3	0.3	1.0	1.0	F. About eleven or more
100	51	59	25	180	67	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						247. How late do you usually stay up on weekends?
2.3	1.4	1.3	0.7	1.9	1.4	A. 9 P.M. or earlier
7.3	6.1	5.9	5.3	6.3	6.2	B. 10 P.M.
17.0	18.3	18.4	20.9	15.0	17.8	C. 11 P.M.
29.9	32.6	34.0	35.2	30.0	32.5	D. 12 Midnight
26.7	29.8	29.7	29.7	27.4	29.7	E. 1 A.M.
16.8	11.8	10.6	8.2	18.9	12.4	F. 2 A.M. or later
103	57	67	23	187	75	(Number that omitted item)
						248. Do you wear glasses all the time?
16.8	20.6	22.3	22.3	15.3	15.5	A. Yes
83.2	79.4	77.7	77.7	84.7	84.5	B. No
96	50	57	24	172	69	(Number that omitted item)
						249. Do you have trouble seeing things from a distance?
20.3	37.9	27.3	40.0	21.1	35.4	A. Yes
79.7	62.1	72.2	60.0	78.9	64.6	B. No
94	50	58	24	170	66	(Number that omitted item)
						250. Do you wear glasses for special purposes (reading, TV, etc.)?
18.3	38.2	23.7	40.8	19.0	35.9	A. Yes
81.7	61.8	76.3	59.2	81.0	64.1	B. No
96	52	60	27	171	77	(Number that omitted item)
						251. Do you have trouble hearing people talk?
5.6	5.8	4.2	4.6	5.4	6.6	A. Yes
94.4	94.2	95.8	95.4	94.6	93.4	B. No
95	51	60	26	179	69	(Number that omitted item)
						252. Are you hard of hearing?
3.5	2.2	1.8	1.7	3.3	2.8	A. Yes
96.5	97.8	98.2	98.3	96.7	97.2	B. No
133	112	141	109	240	137	(Number that omitted item)
						253. Do you wear a hearing aid?
5.3	3.8	2.8	3.2	6.0	5.2	A. Yes
94.7	96.2	97.2	96.8	94.0	94.8	B. No
98	54	63	26	177	73	(Number that omitted item)
						254. Are you able to speak clearly all of the time?
75.8	82.6	80.8	84.3	75.9	81.8	A. Yes
24.2	17.4	19.2	15.7	24.1	18.2	B. No
96	54	62	27	177	73	(Number that omitted item)
						255. Is your speech easily understood?
78.7	84.9	84.1	86.4	78.3	83.8	A. Yes
21.3	15.1	15.9	13.6	21.7	16.2	B. No
99	55	65	28	179	74	(Number that omitted item)
						256. Do you have more trouble with your skin than others your own age?
13.8	10.7	12.6	9.7	13.2	10.2	A. Yes
86.2	89.3	87.4	90.3	86.8	89.8	B. No
100	55	64	28	186	75	(Number that omitted item)
						257. Do you have more trouble with the skin on your face than others your own age?
16.7	12.8	16.3	11.4	16.9	12.3	A. Yes
83.3	87.2	83.7	88.6	83.1	87.7	B. No
104	59	67	30	197	77	(Number that omitted item)
						258. Have you ever been knocked unconscious?
36.8	18.5	33.8	16.6	39.7	20.2	A. Yes
63.2	81.5	66.2	83.4	60.3	79.8	B. No
103	59	68	29	189	76	(Number that omitted item)
						259. Do you have normal use of both your legs?
91.3	91.3	92.5	90.9	90.1	90.8	A. Yes
8.6	8.7	7.5	9.1	9.9	9.2	B. No
104	60	69	30	191	80	(Number that omitted item)
						260. Do you have normal use of both your arms?
91.4	91.3	92.8	93.9	90.5	90.7	A. Yes
8.6	8.7	7.2	6.1	9.7	9.3	B. No
103	60	67	32	191	80	(Number that omitted item)
						261. Do you have normal use of both your hands?
87.7	88.1	90.2	87.9	86.4	87.0	A. Yes
12.3	11.9	9.8	12.1	13.6	13.0	B. No
103	61	69	31	194	81	(Number that omitted item)
						262. Do you have trouble with your back or spine?
13.9	15.3	12.8	12.8	14.8	15.7	A. Yes
86.1	84.7	87.2	87.2	85.2	84.3	B. No
104	60	70	29	196	78	(Number that omitted item)
						263. Do you have frequent stomach trouble or indigestion?
11.4	14.2	8.0	9.6	11.3	15.5	A. Yes
88.6	85.8	92.0	90.4	88.7	84.5	B. No
107	62	71	33	200	81	(Number that omitted item)
						264. Have you ever worn a shoulder brace, corrective shoes, leg brace, or any other appliance?
11.2	8.8	12.8	10.4	11.9	9.0	A. Yes
88.8	91.2	87.2	89.6	88.1	91.0	B. No
110	65	73	33	201	82	(Number that omitted item)
						265. Have you ever had mumps?
70.7	66.5	71.7	65.2	70.6	66.2	A. Yes
29.3	33.5	28.3	34.8	29.4	33.8	B. No
117	70	78	36	214	86	(Number that omitted item)
						266. Have you ever had rheumatic fever?
6.7	5.2	4.6	3.6	7.0	5.5	A. Yes
93.3	94.8	95.4	96.4	93.0	94.5	B. No
116	73	80	38	213	90	(Number that omitted item)
						267. Have you ever had asthma?
7.0	5.8	9.0	6.9	8.4	7.1	A. Yes
93.0	94.2	91.0	93.1	91.6	92.9	B. No
116	75	82	39	216	96	(Number that omitted item)
						268. Have you ever had hay fever?
17.2	18.4	21.4	22.2	19.2	19.4	A. Yes
82.8	81.6	78.6	77.8	80.8	80.6	B. No
115	74	78	38	218	92	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						269. Has a doctor ever told you that you have an allergy?
15.8	22.7	24.3	30.8	16.2	23.4	A. Yes
84.2	77.3	75.7	69.2	83.8	76.6	B. No
113	72	78	38	216	92	(Number that omitted item)
						270. Has a doctor ever told you that you have heart trouble?
5.7	4.9	4.5	3.8	5.3	5.4	A. Yes
94.3	95.1	95.5	96.2	94.7	94.6	B. No
116	71	81	38	212	92	(Number that omitted item)
						271. Have you ever had infantile paralysis (polio)?
3.0	2.9	2.6	2.6	3.6	3.1	A. Yes
97.0	97.1	97.4	97.4	96.4	96.9	B. No
118	72	79	39	215	95	(Number that omitted item)
						272. Have you had frequent sore throat?
19.5	34.7	15.0	27.0	19.9	36.8	A. Yes
80.5	65.3	85.0	73.0	80.1	63.2	B. No
120	72	81	39	217	95	(Number that omitted item)
						273. Have you ever had severely aching joints?
16.6	18.5	12.6	14.6	16.0	19.4	A. Yes
83.4	81.5	87.4	85.4	84.0	80.6	B. No
135	99	96	48	233	108	(Number that omitted item)
						274. Do you often get severe headaches?
12.7	25.5	8.1	18.7	13.0	28.2	A. Yes
87.3	74.5	91.9	81.3	87.0	71.8	B. No
137	103	99	47	234	105	(Number that omitted item)
						275. Have you ever had spells of dizziness and faintness?
23.3	37.0	19.7	32.5	21.7	36.5	A. Yes
76.7	63.0	80.3	67.5	78.3	63.5	B. No
140	107	99	48	238	108	(Number that omitted item)
						276. Do you often get aches and pains even when you are not sick enough to see a doctor?
14.8	30.1	11.5	22.3	14.2	30.8	A. Yes
85.2	69.9	88.5	77.7	85.8	69.2	B. No
142	110	103	53	244	112	(Number that omitted item)
						277. Do you catch colds very often?
22.4	28.4	19.9	23.6	20.9	27.7	A. Yes
77.6	71.6	80.1	76.4	79.1	72.3	B. No
143	110	102	50	239	108	(Number that omitted item)
						278. Do you have trouble getting rid of a cold?
27.3	32.8	25.8	29.0	25.8	31.6	A. Yes
72.7	67.2	74.2	71.0	74.2	68.4	B. No
141	112	105	52	246	110	(Number that omitted item)

Items 279-283. **For health reasons are you required to do the following:**

						279. Follow a special diet as prescribed by a doctor?
4.4	6.6	3.6	5.4	4.6	7.0	A. Yes
95.6	93.4	96.4	94.6	95.4	93.0	B. No
146	113	106	57	255	116	(Number that omitted item)
						280. Get more sleep than others your age?
7.0	7.1	4.5	5.5	7.1	7.9	A. Yes
93.0	92.9	95.5	94.9	92.9	92.1	B. No
150	115	103	59	261	121	(Number that omitted item)
						281. Avoid too much physical exertion or strenuous exercise?
8.6	10.6	6.0	7.2	8.5	11.0	A. Yes
91.4	89.4	94.0	92.8	91.5	89.0	B. No
150	123	111	58	265	125	(Number that omitted item)
						282. Take special exercises?
6.4	5.3	4.3	3.2	7.4	5.8	A. Yes
93.6	94.7	95.7	96.8	92.6	94.2	B. No
151	116	111	62	267	123	(Number that omitted item)
						283. Take medicine or pills prescribed by a doctor?
8.2	18.0	8.6	17.5	8.7	18.5	A. Yes
91.8	82.0	91.4	82.5	91.3	81.5	B. No
155	121	117	66	273	127	(Number that omitted item)

Awards

Items 284-291. **For each of the following, how many awards or competitions have you won since you started the ninth grade?** ***Do not include awards or competitions which included only a single class or grade in school. Count activities which were on a school, city-wide, state-wide, or national level.***

						284. Science
92.1	95.0	86.7	91.9	89.7	94.8	A. None
5.0	2.7	8.3	5.4	6.0	3.4	B. One
1.4	0.7	2.6	1.6	2.3	0.8	C. Two
0.7	0.2	1.1	0.3	0.9	0.3	D. Three
0.2	0.1	0.4	0.1	0.3	0.1	E. Four
0.7	0.5	0.9	0.6	0.8	0.6	F. Five or more
156	120	114	54	279	125	(Number that omitted item)
						285. Mathematics
94.3	97.3	91.7	96.2	92.0	96.3	A. None
2.6	1.3	5.3	2.5	4.0	2.0	B. One
1.5	0.5	1.5	0.6	1.8	0.6	C. Two
0.7	0.1	0.6	0.1	0.9	0.2	D. Three
0.2	0.1	0.3	0.1	0.5	0.1	E. Four
0.6	0.5	0.7	0.5	0.8	0.7	F. Five or more
160	126	116	59	287	131	(Number that omitted item)
						286. Foreign languages
96.6	97.0	95.7	93.5	94.7	96.0	A. None
1.3	1.6	2.6	4.2	2.4	2.1	B. One
0.9	0.6	0.9	1.2	1.2	0.8	C. Two
0.5	0.2	0.2	0.4	0.7	0.2	D. Three
0.2	0.1	0.1	0.2	0.3	0.1	E. Four
0.6	0.5	0.6	0.5	0.7	0.7	F. Five or more
161	125	118	61	289	132	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						287. Writing, debate, or oratory
93.4	91.0	88.0	82.3	90.6	88.9	A. None
3.5	5.5	6.8	10.5	4.8	6.4	B. One
1.4	1.7	2.5	3.8	2.1	2.1	C. Two
0.6	0.7	0.9	1.5	1.0	0.8	D. Three
0.3	0.3	0.4	0.6	0.4	0.5	E. Four
0.8	0.8	1.4	1.4	1.1	1.3	F. Five or more
164	129	123	62	294	135	(Number that omitted item)
						288. Art
91.8	93.4	93.9	94.9	90.6	92.2	A. None
4.4	3.8	3.2	4.6	4.5	4.2	B. One
1.8	1.3	1.3	1.9	2.3	1.7	C. Two
0.6	0.5	0.6	0.6	1.1	0.8	D. Three
0.5	0.3	0.2	0.3	0.5	0.3	E. Four
0.9	0.7	0.9	0.8	1.1	0.8	F. Five or more
162	126	121	62	298	132	(Number that omitted item)
						289. Music
88.4	86.6	83.0	77.9	86.1	84.6	A. None
4.7	6.0	6.5	9.0	5.4	7.0	B. One
2.6	3.0	3.9	4.7	3.4	3.3	C. Two
1.8	1.7	2.3	2.9	2.0	1.8	D. Three
0.8	1.0	1.1	1.7	0.9	1.2	E. Four
1.6	1.8	3.3	3.9	2.2	2.0	F. Five or more
161	127	121	62	293	132	(Number that omitted item)
						290. Athletics
63.8	82.8	52.9	79.0	56.1	8.18	A. None
11.2	7.6	12.6	8.2	12.3	8.1	B. One
8.1	4.0	9.5	5.0	9.8	4.1	C. Two
5.7	2.2	6.8	2.9	6.6	2.4	D. Three
3.2	1.3	3.9	1.7	4.2	1.3	E. Four
8.0	2.0	14.3	3.2	10.9	2.3	F. Five or more
163	125	121	60	289	133	(Number that omitted item)
						291. Activities, such as student government, Boy Scouts or Girl Scouts, YMCA or YWCA, etc.
75.6	81.9	64.0	71.3	72.4	81.8	A. None
7.3	7.5	11.1	11.3	8.3	7.1	B. One
6.0	3.3	8.2	6.3	6.6	4.0	C. Two
3.0	2.1	5.1	3.4	4.4	2.1	D. Three
2.0	1.4	2.6	1.9	2.2	1.2	E. Four
5.5	4.0	9.1	5.8	6.1	3.9	F. Five or more
165	129	123	63	294	135	(Number that omitted item)

Driving

						292. How old were you when you learned to drive a car?
6.1	23.1	6.2	15.6	6.0	21.8	A. I do not know how to drive a car.
30.2	8.7	25.6	9.1	32.1	11.0	B. 13 or younger
18.7	10.0	17.8	10.8	20.4	11.7	C. 14
19.9	18.5	23.1	23.5	19.7	20.4	D. 15
20.0	30.7	23.4	34.4	17.7	27.2	E. 16
5.0	9.1	3.9	6.6	4.2	7.8	F. 17 or older
162	129	123	61	290	131	(Number that omitted item)
						293. About how many times in the past 6 months have you driven or ridden on a motorcycle?
68.0	82.8	76.1	87.8	66.3	80.7	A. None
15.2	9.0	14.0	6.4	16.0	9.6	B. About 1 to 4 times
4.2	1.8	2.5	0.9	4.8	2.1	C. About 5 to 9 times
2.9	1.3	1.4	0.8	2.5	1.6	D. About 10 to 19 times
1.4	1.0	0.6	0.9	1.3	1.1	E. About 20 to 29 times
8.2	4.0	5.5	3.2	9.0	4.9	F. About 30 times or more
161	127	121	61	295	132	(Number that omitted item)
						294. On the average, how many times a week during the past school year have you driven a car (for purposes other than work)? *Count evening dates and driving to school as separate occasions.*
14.4	36.5	12.6	25.7	13.5	33.7	A. None
6.2	8.3	5.3	8.9	6.1	8.1	B. Less than one time, on the average
10.8	12.4	10.4	12.4	10.2	11.2	C. One or two times
14.8	12.6	17.9	16.6	14.3	11.8	D. Three to five times
9.9	6.7	11.7	10.1	8.8	7.4	E. Six to nine times
44.0	23.5	41.9	26.3	47.1	27.8	F. Ten or more times
169	133	125	66	303	143	(Number that omitted item)
						295. Do you have a car of your own, or one that is mostly for your use?
49.5	18.4	43.2	21.6	51.0	21.9	A. Yes
50.5	81.6	56.8	78.4	49.0	78.1	B. No
151	107	107	52	282	127	(Number that omitted item)
						296. Did you take driver training at school?
46.6	47.6	46.6	47.5	41.4	44.4	A. Yes
21.1	21.6	21.6	21.4	23.0	23.4	B. No, this course is not available.
30.7	29.3	31.0	29.9	34.0	30.7	C. No, although the course is available.
1.6	1.6	0.8	1.2	1.6	1.5	D. No, but I expect to take the course in a later grade.
165	121	116	59	301	141	(Number that omitted item)

Part VI: PLANS

Directions: The questions in this part are about your plans for the future. Each question has *one answer* and *only one answer*. Answer each question sincerely and thoughtfully. *Answer every question even if your plans are not definite.* Now, go ahead and answer the questions.

Education

The next questions are about your plans for education after high school. Please remember that education after high school can be any one of the following:

Vocational Schools: such as schools for barbers, beauticians, electricians, mechanics, technicians, etc. The program may last from a few months to two or three years. Although these schools are sometimes called a college, for the purpose of this questionnaire think of them as Vocational Schools.

Business or Commercial Schools: such as secretarial, stenotyping, or bookkeeping schools. The program may last from a few months to two or three years. Although these schools are sometimes called a college, for the purpose of this questionnaire think of them as Business or Commercial Schools.

Junior College: a two-year college program.

Four-year College: has programs leading to a degree, such as Bachelor of Arts, Bachelor of Science, Bachelor of Engineering, etc.

Now, go ahead and answer the questions.

Noncollege Respondents		College Respondents		Non-respondents	
M	F	M	F	M	F

297. Do you think you will quit high school before you graduate?

2.1	1.8	1.1	1.3	2.0	1.6
1.0	0.3	0.3	0.1	1.3	0.4
1.4	0.5	0.3	0.1	1.8	0.8
8.9	4.5	2.2	1.6	8.2	5.2
86.6	92.9	96.2	96.9	86.7	92.0
160	104	110	48	288	124

A. I definitely will leave.
B. I am almost sure to leave.
C. I am likely to leave.
D. I am *not* likely to leave.
E. I definitely will *not* leave.
(Number that omitted item)

298. After you leave high school, are you likely to go to a vocational school?

6.6	8.5	4.4	4.5	6.5	7.0
6.5	5.9	2.7	2.5	6.0	5.5
17.4	10.0	5.6	3.3	14.8	10.2
39.1	33.3	26.8	21.5	33.9	31.9
30.3	42.3	60.6	68.2	38.8	45.3
179	142	130	88	319	158

A. I definitely will go.
B. I am almost sure to go.
C. I am likely to go.
D. I am *not* likely to go.
E. I definitely will *not* go.
(Number that omitted item)

299. After you leave high school, are you likely to go to a business or commercial school?

4.1	8.5	2.9	3.6	4.6	7.4
4.3	7.9	2.0	2.1	4.6	7.3
13.0	18.9	5.7	5.4	12.8	16.7
40.1	35.1	29.6	26.7	36.1	33.5
38.5	29.7	59.7	62.3	41.9	35.1
174	114	123	55	312	141

A. I definitely will go.
B. I am almost sure to go.
C. I am likely to go.
D. I am *not* likely to go.
E. I definitely will *not* go.
(Number that omitted item)

300. After you leave high school, are you likely to go to a junior college or a four-year college *part-time*?

3.7	2.8	10.5	11.0	7.7	5.5
5.3	3.0	7.6	5.6	6.8	4.6
15.2	9.1	11.4	8.2	15.5	9.2
37.6	28.9	31.3	30.0	32.8	27.4
38.2	56.1	39.2	45.2	37.1	53.3
170	110	125	57	307	139

A. I definitely will go.
B. I am almost sure to go.
C. I am likely to go.
D. I am *not* likely to go.
E. I definitely will *not* go.
(Number that omitted item)

301. After you leave high school, are you likely to go to a junior college or a four-year college *full-time*?

7.3	5.7	56.7	61.9	22.0	17.5
7.7	4.7	23.0	18.7	12.0	8.1
14.0	7.8	11.0	7.9	14.3	8.1
34.2	24.7	5.6	6.1	24.5	20.9
36.8	57.2	3.8	5.5	27.2	46.1
174	115	128	51	314	141

A. I definitely will go.
B. I am almost sure to go.
C. I am likely to go.
D. I am *not* likely to go.
E. I definitely will *not* go.
(Number that omitted item)

302. Which type of college are you more likely to attend?

20.0	12.6	80.3	78.4	35.1	24.3
9.5	7.3	10.7	11.9	11.5	9.2
17.6	15.5	6.6	5.7	15.0	14.2
52.9	64.7	2.3	3.9	38.4	52.4
178	128	127	56	318	143

A. Four-year college
B. Junior college
C. I don't know which I will attend.
D. I don't expect to go to college.
(Number that omitted item)

303. When do you plan to start college?

50.5	62.8	2.6	4.0	36.2	51.2
19.8	19.8	89.2	91.1	40.6	34.3
7.6	0.5	2.4	0.3	6.4	0.5
6.8	4.7	1.8	1.4	5.4	4.5
15.4	12.2	4.0	3.3	11.4	9.5
118	125	132	55	325	147

A. I don't plan to go to college.
B. I plan to start college right after high school.
C. I plan to start college after completing military service.
D. I plan to start college after I have worked for a few years.
E. I may go to college sometime in the future, but my plans are not definite.
(Number that omitted item)

304. What is the greatest amount of education you expect to have during your life?

1.9	0.9	0.1	0.1	2.1	1.1
39.7	43.3	1.7	1.8	30.6	27.2
25.6	36.7	5.0	10.8	17.5	29.4
10.9	9.3	6.6	13.2	10.3	9.8
15.7	7.3	47.3	52.7	25.5	16.0
6.3	2.5	39.4	21.5	14.0	6.5
192	132	137	56	340	157

A. I don't expect to finish high school.
B. I expect to graduate from high school.
C. I expect to obtain vocational, business school, or junior college training.
D. I expect to obtain some (less than 4 years) regular college training.
E. I expect to graduate from a regular four-year college.
F. I expect to study for advanced college degrees.
(Number that omitted item)

305. Have you taken, or do you expect to take, the National Merit Scholarship tests?

74.3	75.0	36.0	35.0	65.9	71.9
7.9	4.4	7.2	5.5	9.7	5.8
17.7	20.6	56.9	59.5	24.4	22.3
198	138	143	61	343	163

A. No, I have not taken, nor do I expect to take these tests.
B. Yes, I expect to take these tests.
C. Yes, I have taken these tests.
(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents	
M	F	M	F	M	F

306. If there were no other way for you to attend college, would you be willing to take out a loan which you would have to pay back after you graduate?

51.3	52.8	89.1	86.6	59.5	56.8
48.7	47.2	10.9	13.4	40.5	43.2
202	150	147	66	353	178

A. Yes
B. No
(Number that omitted item)

Items 307-318. If you are not planning college, or if you think you might *not* go, how important would each of the following be in changing your mind in favor of going to college?

If you are planning college, or if you think you may go, how important to you is each of the following as a reason for going to college?

307. A college degree is necessary for the kind of work I want to do.

19.0	17.8	54.8	57.9	31.5	24.2
9.7	7.7	14.6	13.2	10.9	9.5
17.1	13.1	12.2	12.7	16.1	12.0
18.9	19.6	4.5	8.9	14.4	17.3
19.3	24.9	2.1	3.8	15.0	21.6
16.0	16.9	1.8	3.5	12.1	15.5
224	170	159	71	389	188

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

308. My father wants me to go to college.

10.2	7.5	26.3	22.9	18.5	12.5
11.5	8.8	20.5	18.8	15.3	11.9
23.3	21.3	26.5	27.3	22.0	20.2
16.2	16.4	11.6	12.8	13.8	14.8
13.0	13.2	4.1	4.2	10.0	12.1
25.9	32.8	11.1	14.1	20.4	28.5
243	200	183	95	424	226

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

309. My mother wants me to go to college.

11.5	8.2	27.9	24.7	20.2	14.0
12.9	9.8	21.5	19.8	16.2	12.6
24.1	22.9	26.5	27.7	23.0	21.9
15.9	16.3	10.8	12.3	13.0	14.5
12.0	12.4	3.9	4.1	9.6	11.1
23.6	30.3	9.4	11.3	18.1	25.9
241	196	169	83	414	216

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

310. I would be able to earn more money as a college graduate.

22.2	17.2	41.4	28.2	30.3	22.2
18.9	16.8	27.5	22.4	21.2	17.4
22.3	25.7	20.4	26.9	19.5	23.2
11.1	12.0	4.9	11.9	8.9	10.7
10.2	11.7	2.4	4.5	8.8	10.7
15.3	16.5	3.4	6.1	11.4	15.8
245	194	168	79	416	215

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

311. I want to learn more about the careers I might enter.

16.7	14.7	27.2	24.7	22.6	19.8
18.1	16.5	24.6	21.2	19.8	17.5
24.6	25.2	23.8	24.5	23.0	23.7
12.3	12.4	11.2	11.9	11.4	10.9
11.4	12.5	4.6	6.0	9.8	10.5
16.9	18.7	8.6	11.8	13.4	17.6
261	225	180	87	433	226

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

312. I want to meet the kind of person I would like to marry.

14.4	12.5	1.12	15.9	15.7	16.2
9.8	8.5	9.1	12.3	11.1	9.9
15.8	13.9	15.5	19.2	15.4	14.8
14.4	14.2	21.4	18.9	15.3	12.9
15.2	16.1	12.9	10.0	15.1	14.4
30.4	34.8	29.9	23.6	27.3	31.8
258	205	182	82	440	228

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

313. I enjoy learning.

9.3	11.7	17.1	24.9	13.7	15.8
15.9	16.6	25.7	28.7	18.8	18.5
28.7	31.3	33.8	31.9	29.3	31.2
15.3	13.2	12.9	8.2	14.0	11.3
11.3	9.1	3.9	2.0	3.8	7.6
19.6	18.1	6.7	4.4	15.4	15.6
268	218	193	90	455	239

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

314. My teachers think that I should go to college.

6.6	5.1	12.6	11.4	9.4	7.0
11.0	8.5	16.9	16.7	12.5	10.4
19.2	20.2	26.4	26.4	21.5	19.6
19.7	18.4	19.8	19.7	18.9	17.6
16.0	15.0	7.5	7.4	13.4	13.6
27.7	32.8	16.8	18.4	24.2	31.8
265	213	189	90	447	239

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

315. I expect to get into college athletics.

5.7	1.6	7.7	2.0	9.0	2.0
6.2	2.3	6.6	2.2	7.8	3.2
11.4	5.1	12.0	5.1	13.1	5.9
17.0	10.6	20.6	12.1	17.3	11.2
20.0	20.3	14.9	14.1	17.2	18.9
39.8	60.0	38.1	64.5	35.6	58.9
267	219	188	90	452	244

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

316. Many of my friends are going to college.

6.0	3.8	7.4	4.9	8.1	5.4
8.2	4.6	8.2	5.7	10.4	6.4
14.3	10.0	15.0	12.6	16.6	11.7
18.3	14.6	23.5	20.4	18.8	15.1
19.5	19.9	16.2	16.5	16.6	18.2
33.7	47.1	29.6	39.8	29.5	43.2
274	219	194	90	457	246

A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents	
M	F	M	F	M	F
4.7	4.1	6.5	7.0	7.1	6.2
7.9	6.2	8.9	10.1	9.5	8.0
14.6	13.1	20.4	23.7	18.0	16.5
17.5	13.9	24.2	21.1	18.8	13.7
19.5	18.6	14.3	12.5	16.6	16.2
35.9	44.0	25.7	25.6	30.0	39.5
277	225	195	92	462	248

317. I want to participate actively in college social life.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

12.1	12.3	14.9	11.1	15.6	14.5
13.8	11.8	16.6	12.5	16.0	13.7
21.5	22.5	24.2	22.9	22.0	22.1
14.7	12.8	16.6	18.2	13.3	11.6
12.8	11.7	8.6	10.2	11.4	11.0
25.3	29.0	19.1	25.2	21.9	27.1
279	228	202	98	468	255

318. I want to make good personal contacts for business or an occupation.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

Items 319-332. If you are planning college, or if you think you may go, how important would each of the following be in changing your mind about going to college?

If you are not planning college, or if you think you might *not* go, how important to you is each of the following as a reason for *not* going to college?

15.1	17.3	23.1	22.6	17.6	18.6
10.4	11.3	11.9	11.4	10.6	10.2
19.8	20.1	14.0	17.4	17.4	17.6
15.7	14.7	7.6	8.4	13.6	13.0
12.7	13.0	11.6	12.0	13.2	14.0
26.3	23.5	31.8	28.1	27.6	26.6
308	261	264	139	520	289

319. A college education would not help me to do the things that I am most interested in.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

15.3	19.2	8.1	7.5	14.7	18.3
15.0	17.4	10.8	11.1	13.7	17.0
24.7	27.5	18.3	21.6	22.2	24.8
14.4	11.1	11.6	13.4	13.7	10.5
11.3	9.4	20.0	18.1	14.0	10.9
19.2	15.4	31.1	28.3	21.7	18.5
307	250	272	141	533	290

320. I want to get a job and start earning a living as soon as possible.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

11.8	13.4	8.7	11.1	12.2	13.7
13.5	13.2	10.8	13.9	13.0	13.8
23.2	23.5	19.1	21.7	22.3	22.3
16.1	12.8	12.3	10.0	15.0	12.2
12.9	13.2	16.6	13.5	14.0	12.9
22.6	23.8	32.5	29.8	23.5	25.3
317	254	285	144	540	294

321. I need to start earning a living in order to support myself.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

13.8	18.7	9.3	13.4	12.5	16.6
13.1	14.7	12.8	15.8	13.7	13.9
23.3	23.0	23.2	25.8	22.2	21.5
14.1	10.0	12.0	10.1	14.1	10.4
12.2	10.4	13.8	10.2	13.0	11.1
23.6	23.3	28.9	24.8	24.6	26.4
322	263	290	149	556	304

322. It would cost more than my parents can afford.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

6.5	8.3	4.1	6.0	6.6	8.1
8.2	8.3	7.5	10.5	8.3	8.2
16.1	16.0	16.6	19.5	16.4	16.5
18.4	14.6	13.8	13.1	17.0	13.9
17.3	15.5	17.1	13.5	16.5	15.7
33.6	37.3	4.10	37.4	35.2	37.6
326	274	299	156	558	316

323. It would cost more than my parents are willing to pay.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

6.9	15.5	2.8	6.3	6.3	16.1
6.4	8.5	3.7	6.1	7.1	8.4
13.7	16.2	9.3	15.1	13.0	15.8
16.6	13.1	12.5	11.7	14.9	11.8
17.1	13.0	17.6	14.5	17.8	13.3
39.4	33.6	54.1	46.4	40.9	34.8
333	276	305	158	564	316

324. I would rather get married.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

9.9	8.7	6.8	8.6	10.1	9.2
10.9	9.7	9.7	10.6	10.1	9.5
23.4	21.4	18.9	21.2	22.7	21.0
15.6	11.2	10.1	7.4	14.5	11.4
13.1	11.2	11.3	8.0	12.9	11.7
27.1	37.7	43.2	44.2	29.7	37.2
333	284	308	161	569	326

325. My high school grades are too low.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

7.6	7.7	6.6	8.5	8.1	8.4
9.7	9.3	9.3	10.6	9.7	8.8
21.6	19.6	16.9	18.3	20.3	19.9
16.7	12.4	1.10	8.1	15.9	11.8
13.6	12.5	12.5	10.2	13.2	12.3
30.7	38.5	43.8	44.3	32.8	38.9
340	294	312	167	577	332

326. I don't like to study.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

6.6	7.6	6.1	8.1	7.3	8.5
9.8	10.2	10.4	11.5	10.3	9.9
20.4	21.0	16.5	20.8	19.7	20.4
15.9	11.6	9.3	7.2	14.1	10.2
13.3	10.9	11.1	8.4	13.5	11.0
34.0	38.7	46.5	44.0	35.0	40.0
341	295	319	174	588	341

327. I don't think I have the ability
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents	
M	F	M	F	M	F
5.5	6.9	4.9	6.4	6.2	7.0
7.5	8.1	8.0	8.6	7.4	7.5
15.6	16.2	13.4	16.4	14.9	15.3
16.2	11.7	8.5	7.6	15.2	11.0
14.8	13.2	12.8	10.4	15.9	12.7
40.4	43.8	52.5	50.6	40.4	46.5
344	303	326	178	598	344

328. It would cost more than it is worth to me.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

3.2	3.0	2.5	3.2	3.8	3.6
4.4	3.6	4.1	4.9	5.1	4.2
10.1	10.3	9.4	13.8	10.9	10.6
14.6	12.0	11.0	11.6	13.2	11.4
15.2	13.8	14.8	13.0	16.5	13.7
52.6	57.3	58.2	53.4	50.4	56.5
349	313	331	182	607	349

329. My mother does not want me to go.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

3.4	3.0	2.6	3.1	3.8	3.3
4.7	3.4	4.1	4.9	5.2	4.1
9.8	10.0	9.4	13.1	10.7	10.5
14.2	11.8	10.8	11.7	13.4	11.3
16.0	13.9	14.9	13.1	16.5	13.9
51.9	57.9	58.3	54.1	50.5	56.9
353	318	344	188	613	359

330. My father does not want me to go.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

2.8	1.8	1.4	1.1	3.6	2.6
4.1	2.2	2.3	1.5	4.5	2.4
9.1	5.6	4.9	4.6	9.4	6.0
15.6	11.6	11.0	10.3	14.2	11.7
18.2	18.1	18.7	18.9	19.0	17.9
50.3	60.7	61.9	63.7	49.3	59.4
355	315	335	182	605	353

331. Most of my friends will not go to college.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

7.1	8.5	7.6	7.6	7.7	8.5
8.4	8.6	9.0	8.8	9.2	8.0
15.3	15.9	13.8	16.4	14.5	15.3
14.5	11.4	8.6	8.0	13.3	10.5
13.5	12.4	11.4	11.6	14.1	12.6
41.2	43.2	49.6	47.5	41.1	45.0
365	334	353	199	624	378

332. I probably would not use a college education on a job.
A. Extremely important
B. Very important
C. Important
D. Neither important nor unimportant
E. Unimportant
F. Not a reason
(Number that omitted item)

Items 333-336. For each of the following statements indicate how much you agree or disagree.

27.3	26.9	20.8	18.0	27.0	26.6
37.7	37.3	34.3	37.4	30.3	34.3
	23.1	25.4	26.2	22.7	23.5
12	10.1	15.1	15.6	13.4	11.9
4	2.6	4.5	2.8	6.5	3.8
340	270	287	138	570	309

333. Success in life depends upon ability and effort, not how much education one has.
A. Agree strongly
B. Agree
C. Neither agree nor disagree
D. Disagree
E. Disagree strongly
(Number that omitted item)

24.2	20.1	15.6	6.8	22.3	17.5
35.4	30.9	26.6	16.1	33.5	29.5
21.0	22.2	21.9	16.7	20.3	20.0
14.6	21.8	28.3	41.6	17.9	25.1
4.9	5.0	7.7	18.9	6.0	7.9
353	294	300	146	580	316

334. Girls should go to college only if they plan to use their education on a job.
A. Agree strongly
B. Agree
C. Neither agree nor disagree
D. Disagree
E. Disagree strongly
(Number that omitted item)

11.5	12.5	12.0	17.9	13.7	15.3
34.0	37.1	40.3	44.2	34.9	38.8
2.8	34.4	30.7	28.1	30.7	31.9
15.9	13.1	13.4	8.3	14.6	11.4
5.8	3.0	3.9	1.5	6.0	2.6
352	297	303	144	581	312

335. More girls should go to college because the country is going to need more trained women to fill important jobs.
A. Agree strongly
B. Agree
C. Neither agree nor disagree
D. Disagree
E. Disagree strongly
(Number that omitted item)

14.2	11.2	9.7	6.3	13.8	10.7
30.7	29.0	26.1	24.9	28.1	28.3
25.8	28.4	21.0	24.2	24.8	26.6
20.2	22.0	27.4	28.7	21.1	23.9
9.0	9.4	15.9	15.8	12.2	10.5
356	296	307	146	585	319

336. It is not necessary to have a college education in order to earn a good salary or be a leader in the community.
A. Agree strongly
B. Agree
C. Neither agree nor disagree
D. Disagree
E. Disagree strongly
(Number that omitted item)

1.8	0.9	0.6	0.3	2.2	1.0
15.4	19.6	1.8	2.0	12.3	17.1
25.3	38.7	5.7	13.2	17.3	30.9
31.0	15.5	67.9	69.9	42.6	26.1
4.1	4.8	17.8	7.3	8.2	5.6
22.4	20.7	6.2	7.3	17.3	19.2
354	299	310	151	588	319

337. How much education do your parents or guardians want you to have?
A. They don't care whether I stay in high school.
B. High school only
C. Vocational school, business school, or junior college
D. A college degree
E. Professional or graduate school
F. I don't know.
(Number that omitted item)

2.1	0.5	0.7	0.1	2.3	0.7
30.2	28.6	8.1	7.1	25.3	25.0
17.2	27.9	8.8	17.7	14.5	25.5
26.9	22.9	64.6	62.9	35.9	28.3
3.6	3.4	8.2	4.3	5.0	4.2
20.0	16.7	9.5	7.8	17.1	16.3
362	299	315	152	595	323

338. How much education are most of your friends planning to obtain?
A. They are planning to quit high school.
B. They are planning to complete only high school.
C. They are planning to obtain vocational school, business school, or junior college training.
D. They are planning to obtain four-year college training.
E. They are planning to obtain professional or graduate training.
F. I don't know.
(Number that omitted item)

TABLE K-1 (continued)

Noncollege Respondents		College Respondents		Non-respondents		Military Plans
M	P	M	P	M	P	
						339. Do you think that you would *like* to make a lifetime career in the military service?
14.0	3.0	6.3	1.7	11.7	3.1	A. Like very much
20.3	6.1	15.7	3.6	17.7	5.6	B. Like fairly well
23.1	19.8	20.8	19.2	22.7	17.8	C. Indifferent
12.0	6.9	16.4	7.0	12.6	7.2	D. Dislike a little
30.6	64.2	40.8	68.6	35.4	66.3	E. Dislike very much
357	352	315	205	593	379	(Number that omitted item)
						340. Do you think you *will* make a lifetime career in the military service?
32.6	75.6	42.6	81.7	36.3	76.9	A. Definitely will not
17.0	10.5	23.3	9.7	18.6	9.0	B. Very unlikely
25.6	8.3	21.7	5.4	24.0	8.0	C. Unlikely
13.2	1.8	7.1	0.8	11.4	1.7	D. Likely
8.6	1.7	4.1	0.9	6.5	2.0	E. Very likely
3.0	2.1	1.2	1.5	3.2	2.3	F. Definitely will
363	359	330	201	602	385	(Number that omitted item)
						341. Under which *one* of the following conditions would you be *most likely* to consider the military service for a lifetime career?
12.8	9.0	6.3	6.0	10.8	9.2	A. I would consider it under present conditions.
20.0	3.6	22.4	3.9	21.3	4.1	B. If I became eligible for commission as an officer
17.9	8.0	15.9	8.5	15.4	6.9	
14.1	2.6	10.8	1.6	13.3	2.4	C. If I were given desirable duty or training
9.7	2.9	10.1	2.0	10.3	3.2	D. If I advanced rapidly
25.5	73.9	34.4	78.0	29.0	74.1	E. If the salary were better
382	390	347	237	634	434	F. I would not consider it under any conditions.
						(Number that omitted item)
						Items 342-346. What is the *longest* period of *active* duty time for which you would consider enlisting in each branch of the service?
						342. Army
38.2	85.0	39.6	89.2	38.8	86.3	A. I would not consider enlisting in this branch.
14.1	3.9	17.0	3.4	15.9	3.8	B. Six months
23.1	6.1	27.0	4.1	23.9	5.3	C. Two years
12.2	1.9	8.5	0.8	10.6	1.4	D. Three years
8.7	0.9	5.3	0.7	7.6	0.9	E. Four years
3.7	2.1	2.5	1.9	3.1	2.3	F. Six years
391	416	357	265	643	453	(Number that omitted item)
						343. Navy
34.2	79.0	30.7	83.0	33.6	81.1	A. I would not consider enlisting in this branch.
10.1	5.1	12.4	4.8	11.6	5.3	B. Six months
19.9	8.1	27.8	6.5	22.7	6.8	C. Two years
12.9	2.9	11.4	1.8	11.8	2.3	D. Three years
16.5	2.5	12.2	1.7	14.2	2.1	E. Four years
6.5	2.3	5.5	2.1	6.1	2.4	F. Six years
400	434	368	275	663	473	(Number that omitted item)
						344. Air Force
31.2	79.1	27.0	82.8	30.4	80.3	A. I would not consider enlisting in this branch.
8.4	4.3	10.5	4.0	10.3	4.4	B. Six months
17.6	7.4	24.3	6.3	19.9	7.3	C. Two years
12.3	3.4	13.0	2.1	12.7	2.7	D. Three years
20.9	3.1	16.5	2.1	18.1	2.6	E. Four years
9.6	2.7	8.6	2.6	8.6	2.7	F. Six years
401	435	366	278	668	478	(Number that omitted item)
						345. Marine Corps
46.8	85.1	49.5	89.3	44.5	85.2	A. I would not consider enlisting in this branch.
9.8	3.7	12.0	3.1	12.1	3.9	B. Six months
16.5	5.3	19.8	3.6	17.7	4.9	C. Two years
10.1	2.2	8.1	1.2	10.3	1.8	D. Three years
11.4	1.7	7.3	0.8	10.7	1.6	E. Four years
5.3	2.1	3.5	2.0	4.7	2.6	F. Six years
401	436	368	277	671	476	(Number that omitted item)
						346. Coast Guard
47.5	88.7	48.6	91.2	48.4	88.5	A. I would not consider enlisting in this branch.
11.8	3.5	13.0	2.8	12.8	3.5	B. Six months
17.1	3.7	20.7	2.7	17.9	3.7	C. Two years
9.4	1.4	7.4	1.0	8.9	1.2	D. Three years
9.5	0.8	6.8	0.7	7.7	1.1	E. Four years
4.7	1.9	3.6	1.6	4.3	2.1	F. Six years
403	434	367	278	671	478	(Number that omitted item)
						Occupations
						347. How many different occupations have you seriously considered entering?
7.8	3.5	3.3	1.3	7.5	4.6	A. None
13.8	17.3	9.7	10.5	14.7	18.3	B. One
34.8	42.5	32.8	37.6	32.9	41.4	C. Two
26.6	27.0	34.3	35.0	27.8	26.1	D. Three
7.2	5.5	9.1	8.9	7.2	5.2	E. Four
9.8	4.2	10.8	6.7	9.8	4.5	F. Five or more
403	342	368	179	673	377	(Number that omitted item)
						348. How definite is your present choice of an occupation?
10.0	21.7	9.8	16.6	10.9	21.0	A. Completely decided
15.7	22.1	19.6	24.8	16.6	21.6	B. Very definite
38.4	35.2	43.0	39.3	37.8	36.1	C. Fairly definite
15.7	9.6	15.1	10.4	15.7	8.9	D. Fairly indefinite
8.3	4.9	6.9	5.6	8.2	5.7	E. Very indefinite
11.9	6.5	5.7	3.3	10.9	6.7	F. Completely undecided
410	350	373	179	678	385	(Number that omitted item)
						349. What grade were you in when you decided upon your present choice of an occupation?
20.3	9.5	14.8	10.0	19.5	11.1	A. I have not decided upon an occupation.
4.0	5.6	3.4	7.7	4.5	6.1	B. 6th grade or earlier
5.6	6.9	5.8	7.1	6.2	6.9	C. 7th or 8th grade
9.2	12.4	8.3	8.7	8.8	10.8	D. 9th grade
12.8	15.4	13.8	15.0	12.3	15.6	E. 10th grade
48.1	50.2	53.9	51.5	48.6	49.6	F. 11th or 12th grade
415	350	384	185	687	390	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		*Items 350-355.* How important will each of the following be to you in your choice of a job?
M	P	M	P	M	P	
						350. Good income to start or within a few years
32.3	31.0	26.6	16.8	35.1	32.6	A. Extremely important
26.1	27.6	29.2	24.5	26.7	26.1	B. Very important
29.4	30.9	32.1	39.6	26.6	29.5	C. Important
6.8	6.2	6.9	11.5	6.1	6.5	D. Neither important nor unimportant
2.9	2.3	2.7	4.9	3.0	2.8	E. Unimportant
2.5	2.0	2.5	2.8	2.5	2.6	F. Not at all important
429	370	404	203	715	416	(Number that omitted item)
						351. Job security and permanence
35.7	34.2	34.8	24.7	37.5	35.0	A. Extremely important
34.0	34.5	36.5	33.6	32.3	32.5	B. Very important
22.3	24.4	21.0	29.6	20.6	23.9	C. Important
4.3	4.1	4.3	7.1	5.1	4.8	D. Neither important nor unimportant
1.7	1.4	1.5	3.1	2.2	1.8	E. Unimportant
2.0	1.4	1.8	1.9	2.3	1.8	F. Not at all important
439	382	414	202	728	421	(Number that omitted item)
						352. Work that seems important to me
35.2	43.2	45.1	57.1	39.8	46.6	A. Extremely important
33.9	34.3	35.6	29.7	31.4	31.4	B. Very important
22.6	18.0	15.0	11.1	20.2	17.6	C. Important
5.2	3.0	3.1	1.3	5.1	2.5	D. Neither important nor unimportant
1.6	0.8	0.6	0.3	1.8	0.6	E. Unimportant
1.5	0.7	0.6	0.5	1.6	1.3	F. Not at all important
440	388	417	207	734	427	(Number that omitted item)
						353. Freedom to make my own decisions
25.6	20.1	28.7	23.2	31.6	24.3	A. Extremely important
29.4	26.4	32.8	30.5	28.0	27.5	B. Very important
29.4	32.1	26.6	29.9	26.3	29.5	C. Important
10.7	15.8	8.6	12.2	9.3	12.9	D. Neither important nor unimportant
3.0	3.6	1.7	2.7	2.7	3.4	E. Unimportant
2.0	1.9	1.6	1.4	2.2	2.3	F. Not at all important
443	391	420	212	735	432	(Number that omitted item)
						354. Opportunity for promotion and advancement in the long run
39.4	36.8	41.9	30.0	42.3	37.7	A. Extremely important
31.2	29.8	32.6	28.0	29.5	28.6	B. Very important
18.6	22.2	16.6	25.5	17.9	21.9	C. Important
6.1	7.0	5.1	10.8	5.3	6.9	D. Neither important nor unimportant
2.5	2.3	1.5	3.6	2.5	2.4	E. Unimportant
2.1	1.9	2.3	2.1	2.6	2.5	F. Not at all important
447	393	425	211	745	434	(Number that omitted item)
						355. Meeting and working with sociable, friendly people
30.2	47.6	29.8	48.6	33.7	47.5	A. Extremely important
29.1	27.8	31.1	27.8	28.0	27.6	B. Very important
25.0	18.6	25.8	17.3	23.9	18.3	C. Important
9.3	3.8	8.6	4.5	8.7	4.1	D. Neither important nor unimportant
3.5	1.1	2.5	1.1	3.0	1.0	E. Unimportant
2.8	1.0	2.3	0.7	3.0	1.4	F. Not at all important
451	393	427	216	750	436	(Number that omitted item)
						Items 356-361. Imagine that you have been working for an employer for several years. How important do you think each of the following conditions would be in influencing you to quit to go to work for another employer?
						356. If I could get better pay at another place
18.9	17.3	16.4	12.1	21.9	19.6	A. Extremely important
21.9	22.0	22.1	20.1	21.8	21.3	B. Very important
38.1	40.5	44.3	46.7	37.3	39.4	C. Important
12.3	13.0	11.2	13.5	11.1	12.0	D. Neither important nor unimportant
5.1	4.8	3.9	5.4	4.7	5.0	E. Unimportant
3.7	2.4	2.2	2.1	3.3	2.8	F. Not at all important
454	387	437	221	764	446	(Number that omitted item)
						357. If the work was not interesting enough
21.7	26.5	28.2	35.2	24.8	28.6	A. Extremely important
28.9	32.2	36.2	35.0	28.6	31.0	B. Very important
32.0	29.9	27.7	23.8	30.2	29.1	C. Important
10.3	6.7	4.8	3.5	9.0	6.0	D. Neither important nor unimportant
4.1	2.4	1.3	1.4	3.8	2.8	E. Unimportant
3.0	2.3	1.7	1.1	3.6	2.4	F. Not at all important
457	393	439	221	768	451	(Number that omitted item)
						358. If I could do more important work elsewhere
20.3	26.3	26.6	35.8	24.0	29.3	A. Extremely important
30.4	32.1	35.7	32.7	29.8	31.4	B. Very important
30.0	26.6	25.5	20.8	28.5	25.9	C. Important
11.9	10.0	8.8	7.5	10.8	8.2	D. Neither important nor unimportant
4.0	3.2	2.1	2.2	3.7	3.3	E. Unimportant
3.4	1.7	1.4	0.9	3.2	1.8	F. Not at all important
462	407	445	226	778	455	(Number that omitted item)
						359. If I had a poor supervisor
17.7	21.7	17.3	20.0	20.3	25.3	A. Extremely important
25.0	26.7	26.8	27.1	25.4	26.1	B. Very important
31.5	30.0	34.1	32.3	29.9	29.2	C. Important
15.8	13.5	15.0	14.4	14.7	11.9	D. Neither important nor unimportant
5.5	4.7	4.2	4.3	5.4	4.3	E. Unimportant
4.4	3.3	2.6	1.9	4.3	3.3	F. Not at all important
464	407	450	226	781	460	(Number that omitted item)
						360. If I didn't like my co-workers
17.4	18.7	19.3	20.1	21.1	21.2	A. Extremely important
24.0	23.7	27.4	25.8	24.4	24.0	B. Very important
31.7	31.9	32.6	33.3	29.0	30.7	C. Important
16.0	15.3	13.9	13.7	14.8	13.7	D. Neither important nor unimportant
6.1	6.3	4.1	4.7	5.9	6.2	E. Unimportant
4.8	4.1	2.7	2.4	4.7	4.2	F. Not at all important
472	431	456	254	789	477	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						361. If I did not receive expected promotions or salary increases
22.2	18.3	21.4	12.5	26.5	20.1	A. Extremely important
27.6	24.1	30.4	22.3	27.0	23.3	B. Very important
31.5	32.6	33.5	38.6	28.8	32.8	C. Important
11.5	15.5	9.6	17.1	10.3	14.1	D. Neither important nor unimportant
4.2	5.8	3.1	6.2	3.9	5.9	E. Unimportant
3.3	3.6	2.1	3.4	3.5	3.7	F. Not at all important
470	417	455	233	790	468	(Number that omitted item)
						Other plans
						362. How many children do you expect to have after you marry?
8.2	3.0	4.9	2.8	8.1	3.8	A. None
4.7	3.1	2.6	1.3	5.1	4.2	B. One
36.2	27.8	34.1	22.6	35.0	28.5	C. Two
28.7	25.7	35.8	30.9	29.4	26.1	D. Three
15.4	27.6	16.1	28.2	15.2	25.1	E. Four
6.9	12.7	6.5	13.6	7.1	12.3	F. Five or more
479	405	471	227	808	453	(Number that omitted item)
						363. How well off financially do you *hope* to be in your lifetime?
4.2	3.2	1.7	1.4	5.0	4.4	A. Able to provide the necessities
47.5	64.0	32.5	49.0	40.7	57.4	B. Comfortable
36.9	27.5	46.9	38.8	37.3	30.0	C. Well-to-do
7.9	3.8	13.0	8.7	11.0	6.0	D. Wealthy
3.5	1.4	5.0	2.1	5.9	2.3	E. Very wealthy
473	408	468	221	801	452	(Number that omitted item)
						364. How well off financially do you really *expect* to be in your lifetime?
2.2	1.2	0.8	0.7	2.1	1.6	A. Barely able to make a living
13.9	15.2	9.1	10.8	13.0	14.7	B. Able to provide the necessities
58.5	70.2	52.7	67.7	52.3	65.5	C. Comfortable
20.3	11.8	30.5	18.3	24.8	15.4	D. Well-to-do
3.0	1.2	5.1	2.2	5.2	2.1	E. Wealthy
2.0	0.5	1.9	0.4	2.6	0.7	F. Extremely wealthy
479	415	474	225	806	465	(Number that omitted item)
						365. For a man who has a wife and children, having a life insurance policy is
75.6	82.8	81.6	83.6	75.3	82.0	A. extremely important.
15.0	12.2	13.1	12.6	14.4	12.6	B. very important.
6.3	3.9	3.9	3.1	6.1	4.2	C. important.
1.6	0.5	0.6	0.4	2.0	0.6	D. neither important nor unimportant.
0.8	0.2	0.3	0.2	1.1	0.2	E. unimportant.
0.8	0.3	0.4	0.1	1.1	0.3	F. not at all important.
491	431	488	234	820	484	(Number that omitted item)
						366. Compared to your (or your future husband's) yearly salary, what is the *greatest* amount of life insurance you expect (or expect him) to have within ten years after you complete high school?
19.1	27.4	15.8	22.7	18.0	26.9	A. Up to an amount equal to ½ my (his) yearly salary
29.9	33.9	29.9	36.9	27.7	33.4	B. Up to an amount equal to my (his) yearly salary
26.3	22.8	27.1	23.4	25.9	21.9	C. Up to an amount equal to twice my (his) yearly salary
10.5	8.5	12.5	9.1	12.4	8.5	D. Up to an amount equal to three times my (his) yearly salary
9.7	5.0	11.6	5.8	11.4	6.7	E. Up to an amount equal to four or more times my (his) yearly salary
4.4	2.3	3.2	2.2	4.6	2.7	F. I do not expect (or expect him) to have a life insurance policy.
578	627	638	424	998	701	(Number that omitted item)
						367. Compared to your (or your future husband's) monthly salary, what is the *least* amount of money you expect (or expect him) to have in a savings account in the tenth year after you complete high school?
6.8	4.0	3.2	1.9	8.0	4.5	A. I do not expect (or expect him) to have a savings account.
9.5	9.0	5.5	4.5	10.0	9.2	B. One month's salary or less
18.5	14.1	17.0	13.2	17.4	14.0	C. Up to 3 months' salary
17.8	19.6	21.6	22.3	18.4	18.5	D. Up to 6 months' salary
18.5	23.9	24.0	28.5	18.3	23.4	E. Up to 1 year's salary
28.8	29.4	28.7	29.5	28.0	30.4	F. More than 1 year's salary
601	594	648	383	1023	662	(Number that omitted item)
						368. Compared to your (or your future husband's) monthly salary, what is the *least* amount of money you expect (or expect him) to have invested in securities (stocks or bonds) in the tenth year after you complete high school?
33.4	38.5	23.6	27.1	27.3	34.4	A. I do not expect (or expect him) to have invested in securities (stocks and bonds).
15.5	18.8	17.6	19.8	17.2	17.8	B. One month's salary or less
20.3	17.2	21.5	20.5	21.7	18.0	C. Up to 3 months' salary
13.1	11.7	16.7	15.9	14.7	12.9	D. Up to 6 months' salary
8.5	8.1	10.8	10.3	9.0	9.4	E. Up to 1 year's salary
9.2	5.7	9.8	6.4	10.0	7.5	F. More than 1 year's salary
622	615	674	405	1050	681	(Number that omitted item)
						369. Compared to your (or your future husband's) monthly salary, how much money do you expect (or expect him) to have invested in real estate? *Do not include your own home.*
49.1	69.7	53.4	66.9	45.4	64.0	A. I do not expect (or expect him) to have invested in real estate, other than purchasing our own home.
11.3	10.2	9.7	8.4	12.9	10.8	B. Up to an amount equal to my (his) monthly salary
11.5	5.7	9.2	7.0	13.7	7.7	C. Up to an amount equal to 3 months' salary
9.4	4.6	7.6	6.0	9.4	6.3	D. Up to an amount equal to 6 months' salary
5.6	3.7	7.1	5.2	8.0	4.4	E. Up to an amount equal to 1 year's salary
13.1	6.1	13.0	6.6	12.5	6.9	F. More than 1 year's salary
632	625	683	409	1084	693	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	P	M	P	M	P	
						370. Which *one* of the following tells *best* how you expect to pay for things you buy after you have started to earn a living?
19.9	12.0	16.6	11.1	19.9	15.0	A. I expect always to pay cash for everything I buy.
54.9	66.4	63.6	66.2	55.2	65.2	B. I expect to pay cash for everything except large purchases, such as a house, a car, etc.
14.4	15.1	14.0	17.9	13.8	12.8	C. I expect to make large purchases (house, car, etc.) and some smaller purchases on the installment plan.
8.1	5.0	4.6	3.7	8.1	5.1	D. I expect to buy many things on the installment plan.
2.7	1.5	1.1	1.1	3.0	1.8	E. I expect to buy almost everything (except needs such as food, rent, etc.) on the installment plan.
576	550	601	329	956	601	(Number that omitted item)
						371. Which *one* of the following statements tells *best* what you do about saving?
12.2	13.3	9.8	9.8	12.2	13.2	A. I save every cent I can, even if I have to do without some things I need.
41.7	35.3	47.2	41.7	39.8	36.1	B. I save whatever remains after I have bought most of the things I want.
29.5	37.6	31.3	36.5	30.4	36.6	C. I save a definite amount and spend whatever remains.
10.1	6.1	7.7	5.5	10.5	6.4	D. I save only after I have bought everything I want.
6.5	7.7	3.9	6.5	7.2	7.7	E. I save little or nothing.
591	571	614	346	971	615	(Number that omitted item)
						372. Which *one* of the following statements tells *best* what you expect to do about saving for the first 5 years after you start to earn a living?
15.9	13.8	13.9	11.9	15.3	15.4	A. I expect to save every cent I can, even if I have to do without some things I need.
35.4	27.3	37.7	27.7	35.5	27.8	B. I expect to save whatever remains after I have bought most of the things I want.
34.3	51.4	37.3	54.6	33.6	48.8	C. I expect to save a definite amount and spend whatever remains.
7.6	3.4	4.8	2.3	8.1	3.7	D. I expect to save only after I have everything I want.
5.0	3.5	5.4	3.2	5.7	3.4	E. I don't expect to save very much when I start earning a living.
1.8	0.5	0.9	0.3	1.8	0.8	F. I do not expect to save anything.
598	556	641	366	996	642	(Number that omitted item)
						373. Among the following, what is the *one most important* thing for which you are now saving?
19.3	17.4	69.7	67.0	31.0	24.7	A. College
17.9	26.3	6.0	5.3	15.8	25.7	B. Marriage
23.5	5.7	6.7	1.4	19.3	5.1	C. A car
5.0	8.2	2.6	6.1	5.8	7.4	D. Clothes or recreational equipment
17.8	18.3	7.2	7.3	14.1	14.6	E. Something not listed above
16.6	24.0	7.8	12.9	14.1	22.4	F. I am not saving now.
613	627	638	352	1001	646	(Number that omitted item)
						374. Among the following, what is the *one most important* thing for which you expect to save after completing your education?
19.9	14.1	18.5	13.3	18.8	15.3	A. A house or furniture
13.6	9.1	6.7	5.5	12.8	8.4	B. A car
9.8	3.6	8.8	3.9	10.9	3.8	C. Investment
39.2	56.2	54.2	62.7	40.6	54.3	D. Marriage or family
14.5	15.2	10.4	13.5	13.9	15.8	E. Something not listed above.
3.2	1.8	1.4	1.1	3.1	2.4	F. I do not expect to save.
606	619	654	374	1012	650	(Number that omitted item)

Part VII: PLANS FOR COLLEGE

Directions: *These questions must be answered only by 11th and 12th grade students.* If you are in the 9th or 10th grade *skip to question 395.*

If you definitely will not go to college (that is, if you marked **E** for questions 300 *and* 301) *skip to question 395.* However, if there is any possibility that you will go to college (that is, if you marked **A, B, C,** or **D** to question 300 *or* 301) answer the following questions. Answer every question even if your answer is not definite.

Cost of college

						375. If there were no other way for you to attend any college, what is the largest amount of money you would be willing to borrow for any one year of college? *Assume that you would have to repay the loan after completing college.*
42.2	43.9	10.8	13.3	35.7	40.9	A. I would not borrow to attend college.
11.6	18.1	11.9	20.1	12.2	17.7	B. About $250 each year
18.8	19.9	28.4	30.2	20.5	19.3	C. About $500 each year
11.2	9.4	16.9	17.5	12.0	10.2	D. About $750 each year
11.2	7.4	23.0	15.6	13.6	9.7	E. About $1000 each year
5.0	1.2	9.1	3.4	6.0	2.4	F. More than $1000 each year
737	1150	672	417	1156	997	(Number that omitted item)
						376. If there were no other way for you to attend college, what is the largest amount of money you would be willing to borrow in order to complete a four-year college degree?
41.2	44.9	10.2	13.4	34.8	40.9	A. I would not borrow to attend college.
12.7	16.5	13.4	18.9	12.8	16.4	B. Up to $1000
15.7	14.1	22.0	24.2	15.9	15.0	C. Up to $2000
10.3	9.5	15.4	16.0	12.0	9.9	D. Up to $3000
13.8	11.8	25.8	21.5	16.3	13.6	E. Up to $4000
6.3	3.1	13.3	6.1	8.2	4.2	F. More than $4000
756	1199	695	438	1187	1097	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	F	M	F	M	F	
						377. If you were to borrow for college, for each $1000 borrowed which of the following plans would you prefer for repaying the loan after college (interest not included)?
41.4	45.0	10.7	13.6	35.0	41.9	A. I would not borrow to attend college.
6.2	4.4	5.0	3.8	6.9	5.4	B. Twenty years at $50 a year
10.8	11.4	17.5	15.8	13.0	11.7	C. Ten years at $100 a year
18.5	21.4	33.9	37.9	21.4	21.9	D. Five years at $200 a year
16.4	14.2	25.1	24.0	17.4	14.9	E. Two years at $500 a year
6.9	3.5	7.7	5.0	6.3	4.2	F. One year at $1000 a year
775	1228	732	476	1214	1070	(Number that omitted item)
						378. If you were to borrow for college, what is the *largest amount of money* you would prefer to repay each year after college?
40.5	44.3	10.3	13.5	34.6	41.0	A. I would not borrow to attend college.
7.6	10.7	8.9	11.3	9.0	11.9	B. Up to $200 a year
13.7	15.9	19.8	24.2	15.6	16.7	C. Up to $200 a year
10.6	10.2	16.0	16.5	12.3	9.8	D. Up to $300 a year
18.0	14.5	29.6	24.7	18.1	14.6	E. Up to $500 a year
9.6	4.5	15.3	9.8	10.4	6.0	F. More than $500 a year
781	1244	749	492	1231	1082	(Number that omitted item)
						379. If there were no other way for you to attend any college, what is the *largest percentage of interest* you would be willing to pay in order to obtain a loan?
17.1	14.7	5.1	6.6	15.9	15.5	A. I would borrow only if no interest is charged.
13.8	17.7	14.0	18.7	14.8	17.2	B. I would pay as much as 2% interest.
25.1	25.6	39.7	43.8	28.2	25.7	C. I would pay as much as 3% interest.
14.4	9.3	25.6	16.6	15.0	10.1	D. I would pay as much as 5% interest.
4.9	2.5	8.8	4.7	6.4	3.6	E. I would pay more than 5% interest.
24.8	30.3	6.6	9.7	19.8	28.0	F. I would not borrow to attend college.
794	1262	773	527	1253	1105	(Number that omitted item)
						380. If you were to borrow for college, you might have to pay interest on the loan. The following shows the amount of money that interest would cost you at 3 per cent on a $1000 loan for different lengths of time. What period of time would you prefer to take to repay the loan, in annual installments after college, considering the amount that interest would cost you?
42.8	45.9	11.5	15.2	36.4	43.7	A. I would not borrow to attend college.
12.9	15.1	15.5	16.8	14.3	16.4	B. One year: total cost of interest—$30
20.2	21.4	29.6	34.4	21.7	21.6	C. Two years: total cost of interest—$45
16.3	13.5	32.8	27.9	19.4	14.3	D. Five years: total cost of interest—$90
4.8	2.4	8.4	4.7	5.2	2.7	E. Ten years: total cost of interest—$165
3.0	1.6	2.3	0.9	3.0	1.4	F. Fifteen years: total cost of interest—$240
812	1290	822	577	1284	1149	(Number that omitted item)
						381. The following shows the amount of money that interest would cost at 6 per cent interest on a $1000 loan for different lengths of time. What period of time would you prefer to take to repay the loan after college, considering the amount that interest would cost you?
44.4	48.3	13.6	17.2	38.2	45.0	A. I would not borrow to attend college.
15.4	18.2	19.6	24.6	17.0	19.9	B. One year: total cost of interest—$60
20.3	21.9	35.5	37.4	23.6	21.9	C. Two years: total cost of interest—$90
13.4	8.5	24.7	17.6	15.2	9.7	D. Five years: total cost of interest—$180
3.7	1.7	4.5	2.3	3.6	2.1	E. Ten years: total cost of interest—$330
2.7	1.4	2.0	0.8	2.2	1.4	F. Fifteen years: total cost of interest—$480
819	1309	851	609	1306	1169	(Number that omitted item)
						382. How much money will you need to complete one year of college? *Do not count living expenses. Include only the cost of tuition, books, and fees. Include the full amount even if you expect to obtain some of the money from scholarships or other sources.*
18.3	16.0	6.1	7.7	16.3	16.3	A. Less than $200
15.5	21.4	14.9	18.7	15.6	21.0	B. $200 to $399
20.1	24.0	19.2	18.5	19.5	19.9	C. $400 to $599
17.4	15.6	18.1	16.9	17.7	14.8	D. $600 to $799
11.7	11.4	16.1	16.3	13.6	11.3	E. $800 to $999
17.0	11.6	25.6	21.8	17.3	16.7	F. $1000 or more
857	1382	841	572	1339	1218	(Number that omitted item)
						383. How much money do you expect you will need for living expenses in your first year of college? *Include the cost of room, board, spending money, travel, etc. Include all expenses.*
40.9	47.8	33.8	37.2	36.8	44.3	A. Less than $500
30.1	34.2	37.4	38.0	31.4	32.5	B. $500 to $999
15.8	10.6	18.5	15.6	17.1	13.8	C. $1000 to $1499
7.0	3.9	5.6	5.4	8.0	4.8	D. $1500 to $1999
2.7	1.9	3.0	2.5	3.1	2.4	E. $2000 to $2499
3.6	1.7	1.7	1.3	3.6	2.1	F. $2500 or more
865	1398	856	584	1351	1235	(Number that omitted item)

Items 384-389. What per cent of the money you will need for college do you expect to get from each of the following sources? *Choose the closest answer.*

						384. Loans from college loan funds
65.3	74.9	78.0	84.0	66.3	74.3	A. 0 per cent
14.2	11.6	11.6	8.4	14.2	11.9	B. 20 per cent
8.9	6.6	5.5	3.7	9.2	6.5	C. 40 per cent
5.5	3.4	2.9	2.1	6.1	3.8	D. 60 per cent
3.2	1.8	1.3	1.3	2.4	2.0	E. 80 per cent
2.9	1.7	0.7	0.4	1.9	1.5	F. 100 per cent
858	1380	868	588	1354	1226	(Number that omitted item)
						385. Loans from other sources (family, friends)
57.1	62.3	69.2	79.5	57.6	65.2	A. 0 per cent
19.9	17.8	15.9	10.0	18.5	15.9	B. 20 per cent
10.4	8.0	6.6	4.1	11.2	7.6	C. 40 per cent
6.6	4.7	3.9	2.6	6.3	4.6	D. 60 per cent
3.0	3.3	2.6	2.1	3.5	3.7	E. 80 per cent
3.1	3.3	1.8	1.7	3.0	2.9	F. 100 per cent
866	1390	881	597	1360	1233	(Number that omitted item)

Noncollege Respondents		College Respondents		Non-respondents		
M	F	M	F	M	F	
						386. Scholarships
68.7	73.8	61.8	63.9	64.1	73.6	A. 0 per cent
12.3	12.4	19.1	21.4	14.3	12.8	B. 20 per cent
7.9	6.2	8.3	8.2	9.3	6.1	C. 40 per cent
5.4	3.7	4.7	3.7	5.5	3.9	D. 60 per cent
3.1	2.1	3.4	2.0	3.6	2.0	E. 80 per cent
2.5	1.8	2.6	0.7	3.2	1.6	F. 100 per cent
870	1401	890	603	1374	1243	(Number that omitted item)
						387. Parents
42.0	32.9	18.1	9.8	34.8	30.0	A. 0 per cent
20.8	18.3	22.6	15.2	19.8	16.2	B. 20 per cent
15.2	12.9	16.7	12.3	15.4	11.8	C. 40 per cent
11.3	12.3	17.2	18.6	12.5	13.6	D. 60 per cent
5.6	12.7	15.7	25.4	9.5	14.4	E. 80 per cent
5.0	10.9	9.8	18.6	8.0	14.0	F. 100 per cent
871	1404	896	598	1372	1242	(Number that omitted item)
						388. Savings from part-time or summer work (while in high school or earlier)
35.9	40.2	31.1	40.2	36.4	42.0	A. 0 per cent
22.9	24.9	36.7	39.8	24.9	25.8	B. 20 per cent
16.0	13.3	15.5	10.2	16.4	12.7	C. 40 per cent
11.7	9.1	8.2	4.6	10.6	8.7	D. 60 per cent
7.4	7.4	5.3	3.5	6.6	6.3	E. 80 per cent
6.1	5.1	3.3	1.8	5.1	4.5	F. 100 per cent
875	1408	902	611	1381	1253	(Number that omitted item)
						389. Part-time or summer jobs while attending college
37.5	42.8	30.4	39.5	35.9	43.9	A. 0 per cent
24.4	26.5	40.0	42.4	28.0	28.1	B. 20 per cent
16.3	12.5	14.7	10.0	16.0	11.3	C. 40 per cent
9.1	7.4	7.4	3.8	8.7	7.2	D. 60 per cent
5.2	5.4	4.3	2.5	6.0	4.9	E. 80 per cent
7.4	5.4	3.2	1.8	5.4	4.6	F. 100 per cent
876	1411	908	615	1379	1253	(Number that omitted item)

Other College Plans

						390. To how many colleges have you made application?
71.3	73.0	24.1	20.3	54.4	61.2	A. I have not made application to any college.
12.7	16.1	35.1	44.9	19.3	21.2	B. One
7.3	5.9	17.9	19.3	11.5	8.9	C. Two
4.5	2.5	13.4	10.0	7.9	4.5	D. Three
1.7	1.0	5.4	3.8	3.8	2.4	E. Four
2.4	1.4	4.0	1.7	3.2	1.8	F. Five or more
857	1355	877	571	1346	1194	(Number that omitted item)
						391. How far from your home is the college you expect to attend?
31.2	36.1	39.4	40.4	32.0	34.0	A. Within commuting distance from my home
14.5	12.5	30.0	30.6	19.2	15.3	B. Too far to commute, but within 200 miles
9.2	5.4	15.7	15.9	12.3	8.1	C. More than 200 miles, but less than 500 miles
6.1	3.5	10.5	10.2	8.7	7.0	D. More than 500 miles
39.0	42.5	4.3	3.1	27.9	35.5	E. I have no plans regarding which college I will attend.
868	1384	887	582	1367	1213	(Number that omitted item)
						392. How close to your home is a college for which you are *eligible?*
48.0	50.1	67.9	71.9	46.5	50.7	A. Within commuting distance from my home
14.0	10.2	18.8	17.3	15.3	11.3	B. Too far to commute, but within 200 miles
6.0	3.0	5.7	4.4	7.5	4.0	C. More than 200 miles, but less than 500 miles
3.7	2.0	3.0	2.1	4.8	3.0	D. More than 500 miles
32.2	34.6	4.7	4.3	25.8	31.1	E. I don't know.
876	1399	889	590	1377	1232	(Number that omitted item)
						393. Where do you expect to live while attending college?
26.6	26.0	27.9	25.5	24.5	24.4	A. At home with my family
23.8	27.1	57.2	66.2	32.8	34.1	B. In a dormitory at the college or university
5.8	3.2	2.3	1.9	7.1	3.6	C. Away from home, with friends or relatives
9.1	5.6	6.3	2.1	8.5	5.2	D. Away from home, in a room or apartment near the college or university
4.7	3.7	2.1	1.7	4.8	4.0	E. Someplace not mentioned above
30.1	34.4	4.2	2.5	22.3	28.8	F. I have no plans regarding where I will live while I am at college.
880	1414	897	595	1379	1242	(Number that omitted item)
						394. Which *one* of the following *best* describes the college you expect to attend?
9.0	8.6	5.9	6.6	9.1	9.3	A. A city-supported college
28.2	20.6	49.1	49.9	34.9	26.1	B. A state-supported college
8.0	8.5	17.4	22.3	9.8	10.3	C. A privately supported church-related college
9.6	7.9	19.5	14.3	11.7	9.0	D. A privately supported independent college
5.6	8.4	3.0	3.0	5.3	6.8	E. Some other type of college
39.7	46.1	5.1	3.8	29.2	38.5	F. I have no plans regarding the type of college I will attend.
877	1424	904	619	1379	1255	(Number that omitted item)

A P P E N D I X L

THE DEVELOPMENT OF THE COLLEGE TAXONOMY AND THE LIST OF COLLEGES IN EACH TAXONOMY GROUP

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The Development of the College Taxonomy

Introduction

As the study of American high-school students progressed, it became desirable to relate the abilities, interests, and stated goals of the students from the time of the original testing in 1960 to the follow-up studies describing their college status. With this in mind, it became important to study the kinds of colleges attended by the students of various aptitude levels, with various career aspirations, and with various plans for advanced degree work. It was decided to attempt to organize colleges into a systematic taxonomy based on the homogeneity of groups of institutions with respect to the ability levels of their students and their broad purposes. The guiding principle was that the colleges in each group should differ among themselves as little as possible, but that the groups should differ among themselves as much as possible.

A First Approximation

The present effort to classify colleges into homogeneous taxonomy groups is considered a first approximation. Only already published and readily available data were used. It is anticipated that further refinements will be made at a later time.

Data of interest to the present study and available about large numbers of colleges were not easy to obtain. Too often, investigations of various sources indicated that data were available about only a small sample of institutions, that they were not readily accessible in usable form, or that they did not appear to be particularly relevant.

A number of sources of data had to be bypassed for this first approximation because the data were not compiled in readily usable form. Limitations of time and finances required obtaining only the most relevant and available data. In spite of these limitations the present study demonstrates the feasibility of classifying colleges for research purposes. Additional studies should be conducted to gain a better understanding of the major similarities and differences among institutions of higher education.

The analyses of the colleges proceeded in three phases.

Data on Each College and University Compiled

Phase one of the analysis consisted of compiling all the basic data available on each college or university in the United States.[1] A five-digit code was used to sort the data obtained in order to classify the institutions. This code was based upon the type of program, the presence or absence of accreditation, public versus nonpublic control, size of endowment, sex of student body, the number of National Merit Scholars who had attended the college, and the size of the enrollment. Table L-1 shows the meaning of each of the digits in the code. Twenty-eight basic groups of colleges emerge from this phase. Table L-2 shows the colleges that were assigned to 25 of the 28 groups used.

Phase two involved the analysis of the colleges in each group based upon the data known about the Project TALENT students who said in the follow-up questionnaire that they were attending the colleges in these groups. Not only were the data from this follow-up questionnaire available, but also the data that had been obtained while these students were seniors in high school during the school year 1959-60. The follow-up questionnaires were used to obtain information on college subjects taken, marks obtained, college major plans, plans for degrees, dropout after the freshman year, and information not related to their college work. Data available about these respondents when they were seniors in high school included scholastic aptitude and achievement, educational and occupational intentions and aspirations, and measures of interest and personality.

Other sources provided data regarding the institutions' productivity of scholars, Ph.D.'s, science doctorates, and medical doctorates. Data for the academic year 1960-61 were used, as this was the year in which Project TALENT seniors first entered college.

Phase three of the analyses was a refinement of phase two. It was found that many of the twenty-eight basic groups of colleges and universities of phase one were similar enough that they should be combined for further analyses.

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[1] See list of references at end of this appendix.

TABLE L-1

Coding for College Taxonomy

First Digit — Taxonomy Code	Primary Program and Accreditation
0	Special (no freshmen)
1	Technological and technical
2	Liberal-arts
3	Teacher preparatory
4	Military service academies
5	Art and music
6	Bible and religion
7	Unaccredited

Second Digit	Control and Sex
0	Not applicable or no distinction
1	Nonpublic; coed or men only
2	Nonpublic; women only
3	Public; coed or men only; major state universities
4	Public; coed or men only; not major state universities

Third Digit	Endowment and National Merit Scholars
0	Not applicable
1-5	The cutting points for endowments and National Merit Scholars depend on the major category (type of institution) of the group. The lower the digit, the higher the endowment and the number of National Merit Scholars.

Fourth Digit	Types of Liberal-Arts Programs
0	Not applicable or no distinction
1	Liberal-arts and science with one or more professional schools and degree level offerings including doctorates
2	Liberal-arts and science with general program or with one or more professional schools. Degree offerings of baccalaureates, masters, or doctorates
3	Liberal-arts and general with terminal-general, occupational, or teacher preparatory; professional and technical with teacher preparatory. Degree offering not considered

Fifth Digit	Enrollment
0	Not distinguished
1	1500 or more
2	500 to 1499
3	0 to 499

TABLE L-2

Universities and Colleges in Each Taxonomy Group**

10 200: TECHNOLOGY

California Inst. of Tech., Cal.
Georgia Inst. of Tech., Ga.
Illinois Inst. of Tech., Ill.
Mass. Inst. of Tech., Mass.
Gaston Tech. Inst. (U. of N.C.)
State Col. of Agri. & Eng. (U. of N.C.)
Rensselaer Polytech. Inst.of Tech., N.Y.
Case Inst. of Tech., Ohio
Carnegie Inst. of Tech., Pa.

10 400: TECHNOLOGY

Colo. School of Mines, Colo.
Rose Polytech, Inst., Ind.
Worcester Polytech. Inst., Mass.
Stevens Inst. of Tech., N. J.
Pratt Inst. of Brooklyn, N. Y.
Rochester Inst. of Tech., N. Y.
Drexel Inst. of Tech., Pa.
Va. Polytech. Inst., Va.

10 500: TECHNOLOGY

Electronic Tech. Inst., Cal.
Northrop Inst. of Tech., Cal.
Chicago Med. Sch., Ill.
Kansas State U. of Agri. & Appl.Sci.,Kan.
La. Polytech. Inst., La.
Babson Inst. for Bus. Admin., Mass.
Lowell Tech. Inst., Mass.
N.England Col. of Pharmacy, Mass.
Detroit Inst. of Tech., Mich.
General Motors Inst., Mich.
Mich. Col. of Mining & Tech., Mich.
Kirksville Col. of Ost. & Surgy.,Kansas City,Mo.
St. Louis C. of Pharm. & Allied Sci., Mo.
Mont. Sch. of Mines, Mont.
Newark Col. of Eng., N. J.
N. M. Inst. of Mining & Tech., N. M.
Clarkson Col. of Tech., N. Y.
Cooper Union, N. Y.
Polytech. Inst. of Brooklyn, N. Y.
Maritime Col., N. Y.
Webb Inst. of Naval Arch., N. Y.
Dyke College, Cleveland, Ohio.
Philadelphia Col. of Phar. & Sci., Pa.
Clemson Agri. Col., S. C.
S.Dak. Sch. of Mining & Tech., S.Dak.
S.Dak. State Col of Agri. & Mech.Arts, S.Dak.
Medical College of Virginia, Richmond, Va.
W.Va. Inst. of Tech., W. Va.

21 110: LIBERAL ARTS; NONPUBLIC

Stanford University, Cal.
Yale University, Conn.
Northwestern University, Ill.
University of Chicago, Ill.
Harvard University, Mass.
Princeton University, N. J.
Col. of Agri. at Cornell U., N. Y.
Col. of Home Ec. at Cornell U., N. Y.
Sch. of Ind. & Labor Rela. at Cornell U., N.Y.
Columbia University, N. Y.
Cornell University, N. Y.
Duke University, N. C.
Rice University, Texas

21 320: LIBERAL ARTS; NONPUBLIC

Harding College, Arkansas
Occidental College, Cal.
Pomona College, Cal.
Wesleyan University, Conn.
Georgetown University, Wash., D.C.
Emory University, Ga.
Knox College, Ill.
Wheaton College, Ill.
De Pauw University, Ind.
Purdue University, Ind.
University of Notre Dame, Ind.
Wabash College, Ind.
Tulane University of La., La.
Johns Hopkins University, Md.
Amherst College, Mass.
Brandeis University, Mass.
Williams College, Mass.
Kalamazoo College, Mich.
Carleton College, Minn.
Macalester College, Minn.
St. Louis University, Mo.
Washington University, Mo.
Dartmouth College, N. H.
University of Rochester, N. Y.
Davidson College, N. C.
Antioch College, Ohio
College of Wooster, Ohio
Denison University, Ohio
Oberlin College, Ohio
Reed College, Ore.
Haverford College, Pa.
University of Pennsylvania, Pa.
Swarthmore College, Pa.
Brown University, R. I.
Vanderbilt University, Tenn.
Baylor University, Texas
Marquette University, Wisc.

21 420: LIBERAL ARTS; NONPUBLIC

Tuskegee Institute, Alabama
Claremont University College, Cal.
University of Redlands, Cal.
University of So. California, Cal.
Colorado College, Colo.
Trinity College, Conn.
Catholic University, The, Wash., D.C.
George Washington University, Wash., D.C.

TABLE L-2 (continued)

University of Miami, Fla.
Atlanta University, Ga.
Morehouse College, (Atlanta U.), Ga.
Berry College, Ga.
Mercer University, Ga.
Loyola University, Ill.
MacMurray College, Ill.
Butler University, Ind.
Grinnell College, Iowa
Berea College, Ky.
Bowdoin College, Me.
Colby College, Me.
St. John's College, Maryland
Boston University, Mass.
Clark University, Mass.
College of Holy Cross, Mass.
Northeastern University, Mass.
Tufts University, Mass.
Albion College, Mich.
Hamline University, Minn.
St. Olaf College, Minn.
Drew University, N.J.
Fairleigh Dickinson University, N.J.
Colgate University, N.Y.
Fordham University, N.Y.
Hamilton College, N.Y.
Jewish Theol.Sem.of America, N.Y.
New York University, N.Y.
St. Lawrence University, N.Y.
Syracuse University, N.Y.
Union College & University, N.Y.
University of Buffalo, N.Y.
Wake Forest College, N.C.
Ohio Wesleyan University, Ohio
Western Reserve University, Ohio
Wittenberg University, Ohio
University of Tulsa, Okla.
Bucknell University, Pa.
Dickinson College, Pa.
Duquesne University, Pa.
Lafayette College, Pa.
Lehigh University, Pa.
University of Pittsburgh, Pa.
Pembroke College (Brown U.), R. I.
Furman University, S.C.
Fisk University, Tenn.
University of the South, Tenn.
Southern Methodist University, Tex .
S.W. University, Tex.
Texas Christian University, Tex.
Middlebury College, Vt.
Hampton Institute, Va.
University of Richmond, Va.
Wash. & Lee University, Va.
Whitman College, Wash.
Bethany College, W. Va.
Lawrence College, Wisc.

21 521: LIBERAL ARTS; NONPUBLIC

Cal. Western U., Cal.
U. of the Pacific, Cal.
U. of San Francisco, Cal.
U. of Santa Clara, Cal.
U. of Denver, Colo.
U. of Bridgeport, Conn..
U. of Hartford, Conn.
Hillyer Col.(U. of Hartford), Conn.
Am. University, The, Wash., D.C.
Howard University, Wash., D.C.
Stetson University, Fla.
Bradley University, Ill.
DePaul University, Ill.
Millikin University, Ill.
Valparaiso University, Ind.
West Baden College, (Loyola U.), Ind.
Drake University, Iowa
University of Wichita, Kans.
Washburn U. of Topeka, Kans.
Loyola University, La.
Boston College, Mass.
Merrimack College, Mass.
Suffolk University, Mass.
University of Detroit, Mich.
Rockhurst College, Mo.
University of Kansas City, Mo.
Creighton University, Nebr.
St. Peter's College, N.J.
Seton Hall University, N.J.
Adelphi College, N.Y.
Alfred College, N.Y.
Ithaca College, N.Y.
Long Island University, N.Y.
Manhattan College, N.Y.
Niagara University, N.Y.
Pace College, N.Y.
St. Bonaventure University, N.Y.
St. Johns University, N.Y.
Col.of Ceramics at Alfred U., N.Y.
Wagner College, N.Y.
Yeshiva University, N.Y.
Fenn College, Ohio
John Carroll University, Ohio
Muskingum College, Ohio
Ohio Northern University, Ohio
University of Dayton, Ohio
Xavier University, Ohio
Youngstown University, The, Ohio
Okla. Baptist University, Okla.
Okla. City University, Okla.
University of Portland, Ore.
Franklin & Marshall College, Pa.
LaSalle College, Pa.
Temple University, Pa.
University of Scranton, Pa.
Villanova University, Pa.
Augustana College, S.Dak.
University of Chattanooga, Tenn.
Abilene Christian College, Tex.

TABLE L-2 (continued)

Hardin-Simmons University, Tex.
St. Mary's U. of San Antonio, Tex.
University of Houston, Tex.
Brigham Young University, Utah
Gonzaga University, Wash.
Pacific Lutheran U., Wash.
Seattle University, Wash.
University of Puget Sound, Wash.

21 522: LIBERAL ARTS; NONPUBLIC

Alabama College, Ala.
St. Bernard College, Ala.
Golden Gate College, Cal.
Loyola U. of Los Angeles, Cal.
Pasadena College, Cal.
U. of San Diego, Col. for Men, Cal.
St. Thomas Seminary, Colo.
Jacksonville University, Fla.
Ill. Wesleyan University, Ill.
North Central College, Ill.
N. Park Col. & Theol. Sem., Ill.
Roosevelt University, Ill.
Anderson Col. & Theol. Sem., Ind.
Goshen College, Ind.
Huntington College, Ind.
Parsons College, Iowa
University of Dubuque, Iowa
Bethany College, Kans.
St. Benedict's College, Kans.
Bowling Green Col. of Commerce, Ky.
Atlantic Union College, Mass.
Augsburg Col. & Theol. Sem., Minn.
Bethel College and Seminary, Minn.
St. John's University, Minn.
Rider College, N.J.
Upsala College, N.J.
Hofstra College, N.Y.
Greensboro College, N.C.
Johnson C. Smith University, N.C.
Livingstone College, N.C.
Ashland College, Ohio
Kenyon College, Ohio
Phillips University, Okla.
Pacific University, Ore.
Willamette University, Ore.
Moravian College, Pa.
St. Vincent College, Pa.
Benedict College, S.C.
Erskine College, S.C.
Southwestern at Memphis, Tenn.
McMurray College, Tex.
Virginia Union University, Va.
Walla Walla College, Wash.

21 523: LIBERAL ARTS; NONPUBLIC

Mount Angel Seminary, Ore.
Academy of the New Church, Pa.
Mary Immaculate Seminary, Pa.
Yankton College, S.Dak.

21 531: LIBERAL ARTS; NONPUBLIC

Fla. Southern College, Fla.
University of Tampa, Fla.
Augustana College, Ill.
School of the Art Inst. of Chicago, Ill.
Evansville College, Ind.
St. Joseph's College, Ind.
Centenary College, La.
Loyola College, Md.
Am. International College, Mass.
Bemidji State College, Minn.
College of St. Thomas, Minn.
Miss. College, Miss.
Monmouth College, N.J.
Canisius College, N.Y.
Iona College, N.Y.
St. Bernardine of Siena College, N.Y.
Baldwin-Wallace College, Ohio
Capital University, Ohio
Marietta College, Ohio
Gannon College, Pa.
Geneva College, Pa.
Gettysburg College, Pa.
Grove City College, Pa.
Pa. Military College, Pa.
St. Joseph's College, Pa.
Wilkes College, Pa.
Providence College, R.I.
Pan American College, Tex.
Trinity University, Tex.
Concord College, W. Va.
Morris Harvey College, W. Va.
Catholic University of Puerto Rico, P.R.
Inter-American U. of Puerto Rico, P.R.

21 532: LIBERAL ARTS; NONPUBLIC

Birmingham-Southern College, Ala.
Huntington College, Ala.
Miles College, Ala.
Spring Hill College, Ala.
Hendrix College, Ark.
Little Rock University, Ark.
Ouachita Baptist College, Ark.
Philander Smith College, Ark.
Chapman College, Cal.
Clarmont Men's College, Cal.
College of the Holy Names, Cal.
College of Notre Dame, Cal.
Pepperdine College, Cal.
Hebrew Union Col.—Jewish Inst. of Rel., Cal.
La Sierra College, Cal.
La Verne College, Cal.
Pacific Union College, Cal.
St. Mary's College of Cal., Cal.
Whittier College, Cal.
Regis College, Colo.
New Haven College, Conn.
Quinnipiac College, Conn.
St. Joseph College, Conn.
Benjamin Franklin University. Wash., D.C.

TABLE L-2 (continued)

Bethune-Cookman College, Fla.
Rollins College, Fla.
Clark College, Ga.
La Grange College, Ga.
Morris Brown College, Ga.
North Ga. College, Ga.
Shorter College, Ga.
N. W. Nazarene College, Idaho
Aurora College, Ill.
Carthage College, Ill.
Elmhurst College, Ill.
Greenville College, Ill.
Ill. College, Ill.
John Marshall Law School, Ill.
Lake Forest College, Ill.
Monmouth University, Ill.
Principia College, The, Ill.
Quincy College, Ill.
Rockford College, Ill.
St. Procopius College, Ill.
Earlham College, Ind.
Franklin College of Indiana, Ind.
Hanover College, Ind.
Ind. Central College, Ind.
Manchester College, Ind.
Marian College, Ind.
Taylor University, Ind.
Buena Vista College, Iowa
Central College, Iowa
Coe College, Iowa
Cornell College, Iowa
Graceland College, Iowa
Iowa Wesleyan College, Iowa
Loras College, Iowa
Luther College, Iowa
Morningside College, Iowa
St. Ambrose College, Iowa
Simpson College, Iowa
Upper Iowa University, Iowa
Wartburg College, Iowa
Westmar College, Iowa
Baker University, Kans.
Bethel College, Kans.
Friends University, Kans.
McPherson College, Kans.
Ottawa University, Kans.
S. W. College, Kans.
Asbury College, Ky.
Bellarmine College, Ky.
Brescia College, Ky.
Campbellsville College, Ky.
Georgetown College, Ky.
Ky. Wesleyan College, Ky.
Pikeville College, Ky.
Transylvania College, Ky.
Union College, Ky.
Villa Madonna College, Ky.
Dillard University, La.
La. College, La.
Xavier University, La.
Bates College, Me.
College of Notre Dame of Md., The, Inc., Md.
Columbia Union College, Md.
Mount St. Mary's College, Md.
St. Mary's Seminary and University, Md.
Western Md. College, Md.
Eastern Nazarene College, Mass.
Emerson College, Mass.
Emmanuel College, Mass.
Springfield College, Mass.
Stonehill College, Mass.
Adrian College, Mich.
Alma College, Mich.
Aquinas College, Mich.
Calvin College, Mich.
Ferris Institute, Mich.
Hillsdale College, Mich.
Hope College, Mich.
Siena Heights College, Mich.
St. Mary's College, Minn.
Delta State College, Miss.
Millsaps College, Miss.
Tougaloo Southern Christian College, Miss.
Central Methodist College, Mo.
Culver-Stockton College, Mo.
Drury College, Mo.
Harris Teachers College, Mo.
Webster College, Mo.
Westminster College, Mo.
William Jewell College, Mo.
Carroll College, Mont.
College of Great Falls, Mont.
Dana College, Nebr.
Hastings College, Nebr.
Midland College, Nebr.
Nebr. Wesleyan University, Nebr.
Union College, Nebr.
St. Anselm's College, N.H.
New Mexico Western College, N.M.
Hartwick College, N.Y.
Hebrew Union Col.--Jewish Inst.of Rel.,N.Y.
Hobart and William Smith College, N.Y.
Houghton College, N.Y.
LeMoyne College, N.Y.
Manhattan School of Music, N.Y.
St. Francis College, N.Y.
St. John Fisher College, Inc., N.Y.
Atlantic Christian College, N.C.
Belmont Abbey College, N.C.
Catawba College, N.C.
Elon College, N.C.
Guilford College, N.C.
High Point College, N.C.
Lenoir-Rhyne College, N.C.
Pfeiffer College, N.C.
Shaw University, N.C.
College of Steubenville, The, Ohio
Defiance College, Ohio
Franklin University, Ohio
Heidelberg College, Ohio
Hebrew Union Col.--Jewish Inst.of Rel., Ohio
Hiram College, Ohio
Mount Union College, Ohio

TABLE L-2 (continued)

Otterbein College, Ohio
Salmon P. Chase College, Ohio
Wilmington College, Ohio
Bethany-Nazarene College, Okla.
Lewis and Clark College, Ore.
Linfield College, Ore.
Albright College, Pa.
Allegheny College, Pa.
Elizabethtown College, Pa.
Juniata College, Pa.
King's College, Pa.
Lebanon Valley College, Pa.
Lycoming College, Pa.
Muhlenberg College, Pa.
Philadelphia Museum Col.of Art, Pa.
St. Francis College, Pa.
Susquehanna University, Pa.
Thiel College, Pa.
Ursinus College, Pa.
Villa Maria College, Pa.
Wash. and Jefferson College, Pa.
Waynesburg College, Pa.
Westminster College, Pa.
Allen University, S.C.
Newberry College, S.C.
Presbyterian College, S.C.
Wofford College, S.C.
Dakota Wesleyan University, S.Dak.
Huron College, S.Dak.
Sioux Falls College, S.Dak.
Bethel College, Tenn.
Carson-Newman College, Tenn.
Christian Brothers College, Tenn.
David Lipscomb College, Tenn.
Knoxville College, Tenn.
Lambuth College, Tenn.
Lane College, Tenn.
Le Moyne College, Tenn.
Maryville College, Tenn.
Southern Missionary College, Tenn.
Tenn. Wesleyan College, Tenn.
Union University, Tenn.
Austin College, Tex.
Bishop College, Tex.
Howard Payne College, Tex.
Mary Hardin-Baylor College, Tex.
St. Edward's University, Tex.
Texas Lutheran College, Tex.
Texas Wesleyan College, Tex.
University of St. Thomas, Tex.
Wayland Baptist College, Tex.
Wiley College, Tex.
Westminster College, Utah
Norwich University, Vt.
St. Michael's College, Vt.
Bridgewater College, Va.
Eastern Mennonite College, Va.
Emory and Henry College, Va.
Lynchburg College, Va.
Randolph-Macon College (Men), Va.
Roanoke College, Va.
Seattle Pacific College, Wash.
Whitworth College, Wash.
Alderson-Broaddus College, W. Va.
Davis and Elkins College, W. Va.
W. Va. Wesleyan College, W. Va.
Beloit College, Wisc.
Carroll College, Wisc.
Ripon College, Wisc.
St. Norbert College, Wisc.

21 533: LIBERAL ARTS; NONPUBLIC

Oakwood College, Ala.
Stillman College, Ala.
Talledega College, Ala.
Arkansas College, Ark.
College of the Ozarks, Ark.
Azusa College, Cal.
Harvey Mudd College, Cal.
Los Angeles Pacific College, Cal.
Menlo College, Cal.
Pacific Oaks College, Cal.
St. John's College, Cal.
St. Patrick's Seminary, Cal.
San Luis Rey College, Cal.
Simpson Bible College, Cal.
Upland College, Cal.
Westmont College, Cal.
Fairfield University, Conn.
Fla. Normal & Indus. Memorial Col., Fla.
Medical College of Georgia, Ga.
Oglethorpe University, Ga.
Paine College, Ga.
Chaminade College of Honolulu, Hawaii
College of Idaho, Idaho
American Conservatory of Music, Ill.
Barat Col.of the Sacred Heart, Ill.
Blackburn College, Ill.
George Williams College, Ill.
Maryknoll Seminary, Ill.
Shimer College, Ill.
St. Meinrad Seminary, Ind.
William Penn College, Iowa
College of Emporia, Kans.
Kans. Wesleyan University, Kans.
Sterling College, Kans.
Centre College of Kentucky, Ky.
Louisville Presbyterian Theol. Sem., Ky.
Notre Dame Seminary, La.
Husson College, Me.
Nasson College, Me.
Washingtown College, Md.
Woodstock College, Md.
Andover Newton Theol. School, Mass.
Assumption College, Mass.
Hebrew Teachers College, Mass.
Lesley College, Mass.
Olivet College, Mich.
Owosso College, Mich.
Sacred Heart Seminary, Mich.
Concordia College, Minn.

TABLE L-2 (continued)

Gustavus Adolphus College, Minn.
St. Paul Seminary, Minn.
Belhaven College, Miss.
William Carey College, Miss.
Cardinal Glennon College, Mo.
Missouri Valley College, Mo.
Park College, Mo.
Tarkio College, Mo.
Rocky Mountain College, Mont.
Doane College, Nebr.
Bloomfield Col. & Theol. Seminary, N.J.
New Brunswick Theol. Seminary, N.J.
Col. of St. Joseph on the Rio Grande, N.M.
Bard College, N.Y.
St. Joseph's Seminary College, N.Y.
Barber-Scotia College, N.C.
St. Augustine's College, N.C.
Jamestown College, N.D.
Athenaeum of Ohio, The, Ohio
Bluffton College, Ohio
Cascade College, Ore.
George Fox College, Ore.
Mount Angel College, Ore.
Alliance College, Pa.
Dropsie College, Pa.
Eastern Baptist College, Pa.
Eastern Baptist Theol.Sem., The, Pa.
Lincoln University, Pa.
Westminster Theol. Seminary, Pa.
Claffin College, S.C.
College of Charleston, S.C.
Lander College, S.C.
Belmont College, Tenn.
King College, Tenn.
Lincoln Memorial University, Tenn.
Milligan College, Tenn.
Scarritt Col.for Christian Workers,Tenn.
Tusculum College, Tenn.
East Texas Baptist College, Tex.
Huston-Tillotson College, Tex.
Jarvis Christian College, Tex.
Texas College, Tex.
Goddard College, Vt.
Hampden-Sydney College, Va.
Presby.Sch.of Christian Educ.,The, Va.
St. Paul's College, Va.
Holy Names College, Wash.
St. Martin's College, Wash.
Wheeling College, W. Va.
Lakeland College, Wisc.
Marian College, Wisc.
Nashotah House, Wisc.
Northland College, Wisc.

22 230: WOMEN; NONPUBLIC, LIBERAL ARTS

Agnes Scott College, Georgia
Mount Holyoke College, Mass.
Radcliffe College, Mass.
Smith College, Mass.
Wellesley College, Mass.
Bernard College, (Columbia Univ.), N.Y.
Vassar College, New York
Bryn Mawr College, Pennsylvania

22 420: WOMEN'S; NONPUBLIC; LIBERAL ARTS

Mills College, Cal.
Scripps College, Cal.
Spelman College (Atlanta U.), Ga.
Goucher College, Md.
Simmons College, Mass.
Sarah Lawrence College, N. Y.
Skidmore College, N. Y.
Chatham College, Pa.
Bennington College, Vt.
Randolph-Macon Women's College, Va.
Sweet Briar College, Va.

22 530: WOMEN'S; NONPUBLIC; LIBERAL ARTS

Judson College, Ala.
Dominican Col. of San Rafael, Cal.
Immaculate Heart Col., Ca.
Marymount Col., Cal.
Mount St. Mary's Col., Cal.
San Diego Col. for Women, Cal.
San Francisco Col. for Women, Cal.
Loretto Heights Col., Colo.
Alburtus Magnus Col., Conn.
Annhurst Col., Conn.
Conn Col., Conn.
Dunbarton Col. of the Holy Cross,Wash,D.C.
Trinity Col., Wash., D.C.
Barry College, Fla.
Brenau College, Ga.
Tift College, Ga.
Wesleyan College, Ga.
Col. of St. Francis, Ill.
Mundelein Col., Ill.
Rosary Col., Ill.
St. Xavier Col., Ill.
St. Francis College, Ind.
St. Mary-of-the-Woods Col., Ind.
St. Mary's College, Ind.
Briar Cliff Col., Iowa
Clarke College, Iowa
Marycrest College, Iowa
Mount Mercy College, Iowa
Marymount College, Kans.
Mount St. Scholastica College, Kans.
St. Mary's College, Kans.
Nazareth College, Ky.
Ursuline College, Ky.
St. Mary's Dominican Col., La.
Hood College, Md.
Mount St. Agnes College, Md.
St. Joseph College, Md.
Anna Maria College, Mass.
Col. of Our Lady of the Elms, Mass.
Newton Col. of the Sacred Heart, Mass.
Regis College, Mass.
Wheaton College, Mass.
Wheelock College, Mass.
Madonna College, Mich.
Marygrove College, Mich.
Mercy College, Mich.

TABLE L-2 (continued)

Nazareth College, Mich.
Col. of St. Benedict, Minn.
Col. of St. Catherine, Minn.
Col. of St. Scholastica, Minn.
Col. of St. Teresa, Minn.
Blue Mountain College, Miss.
College of St. Teresa, Mo.
Fontbonne College, Mo.
Lindenwood Col. for Women, Mo.
Maryville Col. of the Sacred Heart, Mo.
Notre Dame College, Mo.
College of St. Mary, Nebr.
Duchesne Col.of the Sacred Heart, Nebr.
Mount St. Mary College, N.Y.
Rivier College, N.H.
Caldwell Col. for Women, N.J.
Col. of St. Elizabeth, N.J.
Georgian Court College, N.J.
College of Mount St. Vincent, N.Y.
College of New Rochelle, N.Y.
College of St. Rose, The, N.Y.
D'Youville College, N.Y.
Elmira College, N.Y.
Finch College, N.Y.
Good Counsel College, N.Y.
Keuka College, N.Y.
Ladycliff College, N.Y.
Manhattanville Col. of the Sacr.Heart,N.Y.
Maryknoll Teachers College, N.Y.
Marymount College, N.Y.
Nazareth College, N.Y.
Notre Dame Col. of Staten Island, N.Y.
Rosary Hill College, N.Y.
Russell Sage College, N.Y.
St. Joseph's Col. for Women, N.Y.
Wells College, N.Y.
Bennet College, N.C.
Flora Macdonald College, N.C.
Meredith College, N.C.
Queens College, N.C.
Salem College, N.C.
Col.of Mt. St. Joseph-on-the-Ohio, Ohio
College of St. Mary of the Springs, Ohio
Lake Erie College, Ohio
Mary Manse College, Ohio
Notre Dame College, Ohio
Our Lady of Cincinnati College, Ohio
St. John College of Cleveland, Ohio
Ursuline College, Ohio
Western College for Women, Ohio
Okla. College for Women, Okla.
Marylhurst College, Ore.
Beaver College, Pa.
Cedar Crest College, Pa.
Chestnut Hill College, Pa.
College Misericordia, Pa.
Immaculata College, Pa.
Marywood College, Pa.
Mercyhurst College, Pa.
Moore Inst. of Art, Sci.,& Indus.,Pa.
Mount Mercy College, Pa.
Rosemont College, Pa.
Seton Hill College, Pa.
Wilson College, Pa.
Salve Regina College, R.I.
Coker College, S.C.
Columbia College, S.C.
Converse College, S.C.
Limestone College, S.C.
Mount Marty College, S.Dak.
Siena College, Tenn.
Incarnate Word College, Tex.
Our Lady of the Lake College, Tex.
Sacred Heart Dominican College, Tex.
Trinity College, Vt.
Hollins College, Va.
Longwood College, Va.
Mary Baldwin College, Va.
Alverno College, Wisc.
Cardinal Stritch College, The, Wisc.
Edgewood College of the Sacr.Heart, Wisc.
Holy Family College, Wisc.
Milwaukee-Downer College, Wisc.
Mount Mary College, Wisc.
Viterbo College, Wisc.
College of the Sacred Heart, Puerto Rico

23 310: MAJOR STATE UNIVERSITIES

University of California, Berkeley, Cal.
University of Illinois, Ill.
Indiana University, Ind.
University of Michigan, Mich.
University of Minnesota, Minn.
University of North Carolina, N.C.
Women's College (U. of N.C.), N.C.
Ohio State University, Ohio
University of Oklahoma, Okla.
University of Texas, Tex.
University of Washington, Wash.
University of Wisconsin, Wisc.

23 410: MAJOR STATE UNIVERSITIES

University of Alabama, Ala.
University of Arkansas, Ark.
University of Colorado, Colo.
University of Delaware, Dela.
University of Idaho, Idaho
Iowa State U. of Science and Tech., Iowa
State University of Iowa, Iowa
University of Kansas, Kans.
University of Louisville, Ky.
University of Maryland, Md.
Michigan State U.of Ag. & Appl. Sci.,Mich.
University of Nebraska, Nebr.
Rutgers, The State University, N.J.
Okla. State U.of Ag. & Appl. Sci.,Okla.
Pennsylvania State University, Pa.
University of Rhode Island, R.I.
University of Vt. & State Ag. Col., Vt.
University of Virginia, Va.
Washington State University, Wash.
University of Wyoming, Wyo.

TABLE L-2 (continued)

23 510: MAJOR STATE UNIVERSITIES

Auburn University, Ala.
University of Alaska, Alaska
University of Arizona, Ariz.
Colorado State University, Colo.
University of Connecticut, Conn.
Fla. Ag. & Mech. University, Fla.
Florida State University, Fla.
University of Florida, Fla.
University of Georgia, Ga.
University of Hawaii, Hawaii
University of Kentucky, Ky.
La. State U. & Ag. & Mech. College, La.
Southern U. & Ag. and Mech. College, La.
University of Maine, Me.
University of Massachusetts, Mass.
Wayne State University, Mich.
University of Mississippi, Miss.
University of Missouri, Mo.
Montana State University, Mont.
University of Nevada, Nevada
University of New Hampshire, N.H.
New Mex.State U.of Ag., Eng., & Sci.,N.M.
University of New Mexico, N.M.
University of North Dakota, N.Dak.
Oregon State University, Ore.
University of Oregon, Ore.
South Carolina State College, S.C.
University of South Carolina, S.C.
State University of South Dakota, S.Dak.
University of Tennessee, Tenn.
Tex. Ag. and Mech. College, Tex.
University of Utah, Utah
West Virginia University, W. Va.
University of Puerto Rico, Puerto Rico

24 511: LIBERAL ARTS; PUBLIC

Howard College, Ala.
Arizona St. University, Ariz.
Ga. State College for Bus. Admin., Ga.
Idaho State College, Idaho
So. Ill. University, Ill.
W. Ill. University, Ill.
Ind. State College, Ind.
N.E. La. State College, La.
N.W. State College of La., La.
University of S.W. La., The, La.
Central Mich. University, Mich.
W. Mich. University, Mich.
Moorhead State College, Minn.
Miss. State Col. for Women, Miss.
Municipal University of Omaha, Nebr.
Eastern N.M. University, N.M.
City College, N.Y.
Hunter College, N.Y.
Ag. and Tech. College of N.C., N.C.
N.C. College at Durham, N.C.
N.Dak. State University, N.Dak.
Bowling Green State University, Ohio
Kent State University, Ohio
Miami University, Ohio
Ohio University, Ohio
University of Akron, The, Ohio
University of Cincinnati, Ohio
University of Toledo, Ohio
S.W. State College, Okla.
E. Tenn. State College, Tenn.
Memphis State University, Tenn.
Tenn. Ag. & Indus. State U., Tenn.
Tenn. Polytech. Inst., Tenn.
Lamar State College of Tech., Tex
Midwestern University, Tex.
North Texas State College, Tex.
Texas Col. of Arts & Industries, Tex.
Texas Southern University, Tex.
Texas Tech. College, Tex.
Texas Womens' University, Tex.
Texas Western College, Tex.
Utah State Univ.of Ag. & Appl.Sci.,Utah
Colleges of William & Mary, Va.
Marshall University, W. Va.

24 531: LIBERAL ARTS; PUBLIC

Alabama State College, Ala.
Florence State College, Ala.
Jacksonville State College, Ala.
Arizona State College, Ariz.
Agricultural, Mech., & Normal Col., Ark.
Arkansas State College, Ark.
Arkansas State Teachers College, Ark.
Cal. State Polytechnic College, Cal.
Chico State College, Cal.
Fresno State College, Cal.
Humboldt State College, Cal.
Long Beach State College, Cal.
Sacramento State College, Cal.
San Diego State College, Cal.
San Fernanco Valley State College, Cal.
San Francisco State College, Cal.
San Jose State College, Cal.
Western State College of Colorado, Colo.
South Conn. State College, Conn.
Albany State College, Ga.
East Illinois University, Ill.
Northern Illinois University, Ill.
Ball State Teachers College, Ind.
State College of Iowa, Iowa
Fort Hays Kans. State College, Kans.
Kans. State College of Pittsburg, Kans.
Kans. State Teachers College, Kans.
East Kentucky State College, Ky.
Morehead State College, Ky.
Murray State College, Ky.
West Ky. State College, Ky.
Grambling College, La.
McNeese State College, La.
S.E. La. College, La.
Morgan State College, Maryland
State Teachers Col. at Towson, Md.
East Michigan University, Mich.

TABLE L-2 (continued)

North Michigan College, Mich.
Mankato State College, Minn.
St. Cloud State College, Minn.
Winona State College, Minn.
Jackson State College, Miss.
Miss. Southern College, Miss.
Miss. State University, Miss.
Central Missouri State College, Mo.
N.E. Missouri State Teachers College, Mo.
N.W. Missouri State College, Mo.
S.E. Missouri State College, Mo.
S.W. Missouri State College, Mo.
Montana State College, Mont.
Nebr. State Teachers College, Nebr.
Brooklyn College, N.Y.
Queens College, N.Y.
East Carolina College, N.C.
State Teachers College, N.Dak.
Central State College, Ohio
Central State College, Okla.
East Central State College, Okla.
N.E. State College, Okla.
S.E. State College, Okla.
Portland State College, Ore.
Citadel, The—The Mil.Col.of S.C., S.C.
Winthrop College, S.C.
Austin Peay State College, Tenn.
Middle Tenn. State College, Tenn.
East Texas State College, Tex.
Sam Houston State Teachers College, Tex.
S.W. Texas State College, Tex.
Stephen F. Austin State College, Tex.
West Texas State College, Tex.
Virginia State College, Va.
Eastern Washington State College, Wash.
Western Washington State College, Wash.
West Virginia State College, W. Va.
Wisconsin State College, Eau Claire, Wisc.
Wisconsin State College, La Crosse, Wisc.
Wisconsin State College, Oshkosh, Wisc.
Wisconsin State College, River Falls, Wisc.
Wisconsin State College, Stevens Pt., Wisc.
Wisconsin State College, Superior, Wisc.
Wisconsin State College, Whitewater, Wisc.
Wisconsin State Col.& Inst.of Tech., Wisc.

24 532: LIBERAL ARTS; PUBLIC

Ala. Ag. & Mech. College, Normal, Ala.
Ark. Ag. & Mech. College, Ark.
Ark Polytech. College, Ark.
Henderson State Teachers College, Ark.
Southern State College, Ark.
L.A. State College of Appl.Arts & Sci., Cal.
Orange County State College, Cal.
Adams State College, Colo.
Fort Valley State College, Ga.
Georgia Southern College, Ga.
Georgia State College for Women, Ga.
Savannah State College, Ga.
West Georgia College, Ga.
Kentucky State College, Ky.
Francis T. Nicholls State College, La.
State Teachers College, Md.
Maryland St. Col. (Div.of U.of Md.), Md.
Alcorn Ag. & Mech. College, Miss.
Lincoln University, Mo.
East Mont. College of Education, Mont.
Northern Mont. College, Mont.
Nebr. State Teachers Col., Chadron, Nebr.
Nebr. State Teachers College, Peru, Nebr.
Nebr. State Teachers Col., Wayne, Nebr.
N.M. Highlands University, N.M.
Harpur College, N.Y.
Elizabeth City State TC, N.C.
Pembroke State College, N.C.
Winston-Salem Teachers College, N.C.
State Teachers College, Dickinson, N.Dak.
State Teachers College, Valley City, N.Dak.
Langston University, Okla.
N.W. State College, Okla.
Eastern Oregon College, Ore.
South Oregon College, Ore.
Black Hills Teachers College, S.Dak.
Southern State Teachers Col., S.Dak.
Sul Ross State College, Tex.
Madison College, Va.
Virginia Military Institute, Va.
Bluefield State College, W. Va.
Fairmont State College, W. Va.
Glenville State College, W. Va.
Shepherd College, W. Va.

24 533: LIBERAL ARTS; PUBLIC

Livingston State College, Ala.
Delaware State College, Delaware
Valdosta State College, Ga.
State Teachers College, Md.
Bank Street College of Education, N.Y.
Mount St.Joseph Teachers College, N.Y.
Long Island Center, N.Y.

34 500: TEACHER TRAINING

Troy State College, Ala.
Colorado State College, Colo.
Central Conn. State College, Conn.
Danbury State College, Conn.
Willimantic State College, Conn.
D. C. Teachers College, Wash., D. C.
Georgia Teachers College, Ga.
Chicago Teachers College, Ill.
Concordia Teachers College, Ill.
Illinois State Normal University, Ill.
National College of Education, Ill.
Farmington State Teachers College, Me.
Gorham State Teachers College, Me.
State Teachers College, Md.
State College at Bridgewater, Mass.
State College at Fitchburg, Mass.
State College at Framingham, Mass.
State College at Lowell, Mass.
State College at North Adams, Mass.

State College at Salem, Mass.
State College at Westfield, Mass.
State College at Worcester, Mass.
Western Montana Col. of Education, Mont.
Concordia Teachers College, Nebr.
Keene Teachers College, N.H.
Plymouth Teachers College, N.H.
Glassboro State College, N.J.
Jersey City State College, N.J.
Montclair State College, N.J.
Newark State College, N.J.
Paterson State College, N.J.
Trenton State College, N.J.
Mills College of Education, N.Y.
College of Education at Albany, N.Y.
College of Education at Brockport, N.Y.
College of Education at Buffalo, N.Y.
College of Education at Cortland, N.Y.
College of Education at Fredonia, N.Y.
College of Education at Geneseo, N.Y.
College of Education at New Paltz, N.Y.
College of Education at Oneonta, N.Y.
College of Education at Oswego, N.Y.
College of Education at Plattsburgh, N.Y.
College of Education at Potsdam, N.Y.
Appalachian State Teachers College, N.C.
Fayettesville State Teachers College,N.C.
Western Carolina College, N.C.
State Teachers College, Ellendale, N.Dak.
State Teachers College, Mayville, N.Dak.
Panhandle Ag. & Mech. College, Okla.
Oregon College of Education, Ore.
Bloomsburg State College, Pa.
California State College, Pa.
Cheyney State College, Pa.
Clarion State College, Pa.
East Stroudsburg State College, Pa.
Edinboro State College, Pa.
Indiana State College, Pa.
Kutztown State College, Pa.
Lock Haven State College, Pa.
Mansfield State College, Pa.
Millersville State College, Pa.
Shippensburg State College, Pa.
Slippery Rock State College, Pa.
West Chester State College, Pa.
Rhode Island College, R.I.
General Beadle State TC, S. Dak.
Northern State Teachers College, S.Dak.
George Peabody College for Teachers, Tenn.
State Teachers College, Castleton, Vt.
State Teachers College, Johnson, Vt.
Lyndon Teachers College, Vt.
Central Washington College of Educ., Wash.
Stout State College, Wisc.

40 000: SERVICE ACADEMIES

U. S. Air Force Academy, Colo.
U. S. Coast Guard Academy, Conn.
U. S. Naval Academy, Md.
U. S. Merchant Marine Academy, N.Y.
U. S. Military Academy, N.Y.

70000: NONACCREDITED INSTITUTIONS

Athens College, Ala.
Grand Canyon College, Ariz.
* John Brown University, Ark.
Biola College, Cal.
Heald Engineering College, Cal.
Southern California College, Cal.
Southwestern University, Cal.
* Union College, Colo.
St. Basil's College, Conn.
Seat of Wisdom College, Conn.
Oblate College, Wash., D. C.
Webber College, Fla.
Piedmont College, Ga.
Jackson College, Hawaii
Chicago Technical College, Ill.
Columbia College, Ill.
* Eureka College, Ill.
Lewis College of Sci. & Tech., Ill.
McKendree College, Ill.
* Parks College of Aeronautical Tech., Ill.
Pestalozzi Froebel Teachers College, Ill.
Bethel College Incorporated, Ind.
* Concordia Senior College, Ind.
Indiana Technical College, Ind.
Marion College, Ind.
Oakland City College, Ind.
St. Benedict College, Ind.
Tri-State College, Ind.
Sacred Heart College, Kans.
St. Mary of the Plains College, Kans.
Tabor College, Kans.
*Carver Sch.of Missions & Social Work, Ky.
St. Mary's College, Ky.
Academy of the Holy Angels, La.
Leland College, La.
Aroostook State Teachers College, Me.
Maine Maritime Academy, Me.
Ricker College, Me.
St. Frances College, Me.
*St. Joseph's College, Me.
Washington State Teachers College, Me.
Coppin State Teachers College, Md.
University of Baltimore, Md.
*Bradford Durfee College of Tech., Mass.
College of St. Joseph, Mass.
Cardinal Cushing College, Mass.
Curry College, Mass.
*Staley College, Mass.
Mass. Maritime Academy, Mass.
*New Bedford Inst. of Tech., Mass.
State College at Boston, Mass.
Western New England College, Mass.
Cleary College, Mich.
Duns Scotus College, Mich.
Lawrence Inst. of Tech., Mich.
Merrill-Palmer Institute, Mich.
St. Mary's College, Mich.
Martin Luther College, Minn.
Northwestern College, Minn.
Miss. Industrial College, Miss.

TABLE L-2 (continued)

Miss. Vocational College, Miss.
Rust College, Miss.
Covenant College, Mo.
Evangel College, Mo.
National College, Mo.
Alma White College, N.J.
Don Bosco College, N.J.
Shelton College, N.J.
St. Michaels College, N.M.
Cathedral Col.of the Immac.Conception,N.Y.
Kings College, N.Y.
Molloy Catholic Col. for Women, N.Y.
Roberts Wesleyan College, N.Y.
St. Thomas Aquinas College, N.Y.
*Findlay College, Ohio
Malone College, Ohio
Rio Grande College, Ohio
*Wilberforce University, Ohio
Benedictine Heights College, Okla.
Northwest Christian College, Ore.
Warner Pacific College, Ore.
Cabrini College, Pa.
*Holy Family College, Pa.
Messiah College, Pa.
National Agricultural College, Pa.
Bryant College, R.I.
Catholic Teachers' College, R.I.
Bob Jones University, S.C.
Morris College, S.C.
Madison College, Tenn.
William Jennings Bryan College, Tenn.
Butler College, Tex.
De Mazenod Scholasticate, Tex.
Paul Quinn College, Tex.
University of Corpus Christi, Tex.
University of Dallas, Tex.
*College of St. Mary-of-the-Wasatch, Utah
Marlboro College, Vt.
Windham College, Vt.
Inst. of Textile Tech., Va.
Salem College, W. Va.
*Dominican College, Wisc.
Immaculate Conception College, Wisc.
Milton College, Wisc.
Milwaukee Sch.of Engineering, Wisc.
Northwestern College, Wisc.
St. Francis College, Wisc.

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*These institutions have received accreditation subsequent to the preparation of the taxonomy as shown in "The New Information Please Almanac Atlas & Yearbook 1963." The Washington Star Edition, Simon and Schuster, New York City.

**The institutions in the following groups are not listed: 00 000, Special Colleges (no freshmen); 61 000, Bible or Religious Colleges; 50 000, Art and Music Institutions.

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A P P E N D I X M

SYSTEM USED FOR CODING NOMINATIONS OF TALENTED STUDENTS PROVIDED BY MEMBERS OF THE SCHOOL STAFF

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The Purpose of the Nominations

In the Guidance Program Questionnaire that was filled out by counselors in the schools involved in the Project TALENT testing program in 1960, item 30 asked for a list of the names of students who were outstanding in some respect.

Item 30 read as follows:

> 30. Outstanding talent: List the names of all students in your school who have displayed truly outstanding talent in some area. Some examples of talents are music, art, dramatics, dancing, writing, public speaking or debate, athletics, leadership, science, mechanics, electronics, etc. Include any other talents that occur to you. It is anticipated that only a small number of a typical group of students will be listed here. Under comments, list any evidence of talent such as winning a competitive art award, etc.

Name	Grade	Special Talent	Comments

The special talents listed for students in grades 11 and 12 have been coded for type of talent represented (in a five-digit number), for the number of areas in which each student was judged to be talented (in a single digit), and for the type of evidence, if any, offered to substantiate the nomination of each student as talented (in a single digit).

Code for Category of Talent Nominations

The code for category of talent nominations is based on a five-digit system. Zeros are added within the talent code to bring the number of digits up to five. The digit "9" is in most cases reserved for "other" categories and subcategories of the basic classification.

Classification System of Talent Nominations

Code	Talent
10	ARTISTIC
11	Dancing
111	Ballet
12	Dramatics
13	Graphic Arts
131	Drawing
14	Photography
19	Other
20	ATHLETIC
21	Games, Ball
211	Baseball
212	Basketball
213	Football
22	Gymnastics
23	Swimming
24	Track and Field
25	Wrestling
29	Other
30	LEADERSHIP
39	Leadership, Other
40	MUSICAL
41	Vocal
42	Instrumental
421	Percussion Instruments
422	Piano and Organ
4221	Piano
4222	Organ
423	String Instruments
4231	Violin
424	Wind Instruments
4241	Wood-Wind Instruments
42411	Clarinet
42412	Flute
4242	Brass-Wind Instruments
42421	Trumpet

Code	Talent
50	SCHOLASTIC
51	Linguistic
511	English
5111	Oral
51111	Debate
51112	Public Speaking
5112	Written
51121	Creative Writing
51122	Journalism
51123	Writing Poetry
512	Foreign Languages
5121	Latin
5122	French
5123	Spanish
5129	Other
52	Mathematical
53	Scientific
531	Physical Science
5311	Physics
5312	Chemistry
5319	Other
532	Biological Science
54	Social Science
541	History
60	OCCUPATIONAL
61	Agriculture
62	Commercial
621	Stenography
622	Typing
629	Other
63	Home Economics
64	Industrial Arts
641	Manual Arts
6411	Sewing
6412	Woodworking
642	Mechanical
643	Mechanical Drawing
644	Electronics
90	OTHER
91	Citizenship

Identification and Combination of Talent Nominations
According to Category

Code	Talent Category	Identification and/or Combination
11	Dancing	acrobatic dancing; choreography; modern dancing; tap dancing
12	Dramatics	stage managing
13	Graphic Arts	painting; sketching; fashion illustrating
131	Drawing	fashion drawing
19	Art, Other	architecture; commercial art (and advertising art, window and merchandising display); arts and crafts (and ceramics, modeling, sculpture, art metal craftsmanship, styling, designing--textile, industrial, car, fashion)
211	Baseball	softball
22	Gymnastics	acrobatics; tumbling
23	Swimming	water ballet; scuba diving
24	Track and Field	crosscountry; hurdling; pole vaulting; 100-yard dash; mile run
29	Athletics, Other	badminton; tennis; archery; baton twirling; equitation; skating; hockey; water skiing; golf; strutting; drum majorette; volleyball; soccer
39	Leadership, Other	children's guide; churchwork; teaching; politics
40	Music	music composing or conducting; song writing
421	Percussion Instruments	cymbals; bells; drums; bass drum; tympani
423	String Instruments	cello; bass; viola; double bass; guitar; harp; string bass
4241	Wood-Wind Instruments	oboe; bassoon; accordion

4242	Brass-Wind Instruments	horn (and baritone horn, French horn); trombone; tuba; cornet; harmonica; saxophone
50	Scholarship	composite academic record
511	English	English grammar and literature; reading (interpretive, poetic, prose reading); verbal ability; poetry (and creative poetry); spelling
5111	English, Oral	speech
51111	Debate	forensics
51112	Public Speaking	lecture team; radio broadcasting; oratory (and declamation)
5112	English, Written	writing; story writing
51122	Journalism	reporting; sports writing
51123	Writing Poetry	creative poetry writing
5129	Foreign Languages, Other	German; Russian
52	Mathematical	creative mathematics; geometry
53	Scientific	natural science; science research
5319	Physical Science, Other	nuclear science; geology; engineering
532	Biological Science	herpetology; horticulture; biochemistry
54	Social Science	economics
541	History	American history
61	Agriculture	beef farming; forestry
62	Commerce	bookkeeping; clerical work; office practice; secretarial work or skills; shorthand
629	Commerce, Other	salesmanship; selling; business
63	Home Economics	cooking
64	Industrial Arts	shop work (and agricultural shop work); machine trades or work; printing; welding; metal work; plumbing; building trades

641	Manual Arts	crafts (stagecraft, handicrafts); construction of models; dressmaking; lettering; pottery skills; tailoring; clothing construction
6412	Woodworking	cabinet work or making; carpentry
642	Mechanical	auto or farm mechanics; aircraft; power plants
643	Mechanical Drawing	drafting (and architectural drafting); architectural drawing
644	Electronics	farm electronics
90	Other	nursing; law; philosophy; scouting; stamp collecting; ventriloquism; cheerleading; human relations; public relations; radio; creativity; creative thinking; initiative; activities; social work
91	Citizenship	social responsibility; character

Code for Verification of Talent Nominations

This code refers to the kind of verification of student's special talent listed by the school counselor in the "Comments" section of item 30 of the Project TALENT Guidance Program Questionnaire.

0 Unsubstantiated talent (i.e., no comment).

1 Scholarship (i.e., the student received a scholarship for the special talent listed).

2 Award (i.e., the student received some kind and type of award for the special talent listed. Award was indicated by such terms as "award," "champ," "winner," "prize," "certificate of merit," "medalist," "key recipient," "honorable mention," and "won pin.").

3 Combination of codes 1 and 2 (i.e., the student received a scholarship and an award for the special talent listed).

4 Other (i.e., the student's special talent was substantiated but by a comment other than "scholarship" or "award" recipient. This kind of verification of special talent was indicated by comments such as: for electronics, "ham radio operator"; for writing, "reporter for . . . News"; for violin, "community symphony"; for football, "All Conference quarterback"; for leadership, "President of the Student Council.").

5 Combination of codes 1 and 4 (i.e., the student received a scholarship for the special talent listed and some other "experiential" kind of verification of this same special talent was indicated).

6 Combination of codes 2 and 4 (i.e., the student received an award for the special talent listed and some other "experiential" kind of verification of this same special talent was indicated).

7 Combination of codes 1 and 2 and 4 (i.e., the student received a scholarship and an award for the special talent listed and some other "experiential" kind of verification of this same special talent was also indicated).

8 (not used)

9 Laudatory comment (i.e., a comment was indicated for the special talent listed but it did not substantiate the special talent listed. This kind of verification of special talent was indicated by comments as: for art, "very talented"; for science, "excellent"; for science, "visual perception"; for mechanical, "high aptitude and neat"; for writing, "very fluid pen.").

A P P E N D I X N

COMPOSITION OF U.S. OFFICE OF EDUCATION REGIONS

Region Number	Area	Composition
1	New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
2	Mideast	Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania
3	Great Lakes	Illinois, Indiana, Michigan, Ohio, Wisconsin
4	Plains	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
5	Southeast	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carclina, South Carolina, Tennessee, Virginia, West Virginia
6	Southwest	Arizona, New Mexico, Oklahoma, Texas
7	Rocky Mountains	Colorado, Idaho, Montana, Utah, Wyoming
8	Far West	California, Nevada, Oregon, Washington
9	Noncontiguous States	Alaska, Hawaii